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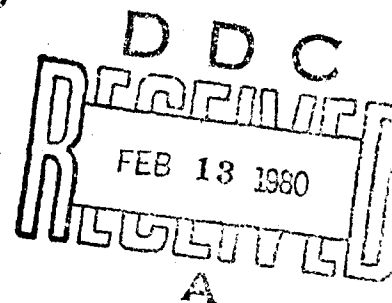
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**AIR FORCE PROFESSIONAL MILITARY EDUCATION
AND
EXECUTIVE LEADERSHIP AND MANAGEMENT DEVELOPMENT
A Summary and Annotated Bibliography**

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FINAL REPORT**



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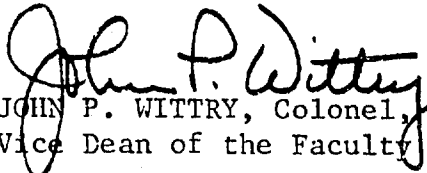
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USAF Academy, Colorado 80840

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leadership and management development common to all large organizations. A major contribution of the report is a comprehensive 130-item annotated bibliography of all of the relevant books and articles published since 1974.

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INTRODUCTION

✓ Professional Military Education (PME) has, historically, been the process employed by a nation's armed services to train and develop officers for future responsibility and the conduct of war. Over the years, substance and pedagogy have changed, but objectives remain the same. The importance of PME cannot be understated as it is the framework for professional development in an officer corps.

The public and private sectors have adopted a similar formal model for executive development. Although some companies have programs that evolved over a long span of time, the literature of executive development reflects significant research only within the past twenty or thirty years. Today, many large organizations have extensive in-house programs with well-defined tracks for executive development. Private consultants, professional organizations, and universities provide a broad spectrum of development alternatives with hundreds of programs offered at almost any price. Executive development is a big business, and the market demand for such programs has resulted from a recognition of the need for education and training as a lifelong endeavor. ↗

Many people today suggest that a peacetime military is not unlike other private and public sector organizations. Executive development, they say, should be a concern in officer education. However, there is a unique demand of the military officer that

makes PME much different than executive leadership and management development. Not only must the military prepare the officer force for peacetime, but the truly outstanding leaders must be identified and developed in preparation for the next war. This is a quite different task with important ramifications, and it is this difference that makes PME dissimilar from other forms of executive development.

Initially, we propose a comparison between PME and a generic model of executive development as applied to the public and private sectors. Our main purpose, however, is to provide researchers with a comprehensive annotated bibliography of the relevant source materials published in the last five years.

METHOD

A thorough review of the literature discovered some 250 bibliographical entries published over the past five years. Two major topics were pursued: Professional Military Education and executive (management) development. With regard to the latter topic, only those items relating to the military environment were examined in detail. The result is a comprehensive bibliography of 130 books and articles, all of which are included in the body of this report.

Extensive interviews conducted with personnel at Headquarters, Air Training Command, Air University, the General Electric Management Development Institute, and Harvard University yielded a plethora of information. We were provided a variety of perspectives. In addition, several ideas were explored in depth with regard to

executive development programs offered by a number of organizations including IBM, Xerox, AT&T, American Management Association, and the University of Michigan, to name but a few.

From this four-month research effort, we have developed a comparative descriptive model. Relevant variables for comparison include program goals, target population, program timing, and costs. The results reflect similarities between PME and existing executive/management development programs except that the unique charge of PME may well diminish these comparisons. To assist the reader in arriving at a meaningful conclusion, an annotated bibliography of the literature is included with this report.

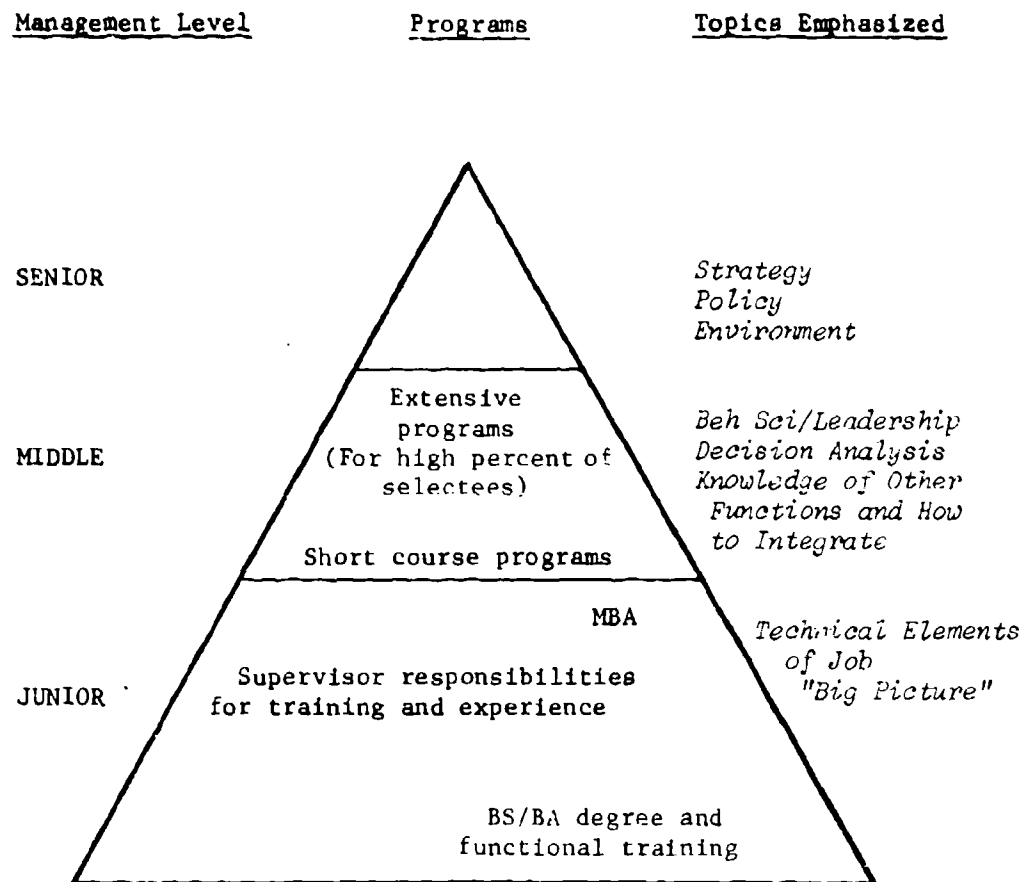
A MODEL OF EFFECTIVE LEADERSHIP/MANAGEMENT DEVELOPMENT

Figure 1 provides a model of development needs characterizing programs found in many public and private sector organizations. Different topics are emphasized by different levels of management, with job-related duties and techniques given major emphasis at lower levels and conceptual skills characteristic of programs offered at the higher levels.

We note that during the 1960s, private sector organizations favored a three-tier management development system very similar to the current Air Force PME approach. The length of programs was extensive, and training was offered only to those who were being groomed for higher level responsibilities. Within a decade, however,

FIGURE 1

MODEL OF DEVELOPMENT NEEDS



several changes evolved. Many participants felt that too much time away from the job was very harmful to their careers. Thus, short courses and workshops evolved, and they are now the norm for most public and private sector organizations. Further, an increasing number of managers are given opportunities for development at the lower organizational levels, while senior-level training is reserved mainly for those few who demonstrate potential for top management responsibilities.

Executive leadership/management development is a continuing emphasis. In fact, attending a workshop or short course as often as ten times in one's career is not an unusual situation. Most formal programs are limited to one week or less, with the longer programs reserved for a select few who have been tapped for specialized top-management responsibilities. Rarely do the longest programs last more than three months. There is increasing emphasis on lower and mid-level programs to provide everyone with some opportunity for development. Junior managers are often sent to programs that will help them build strengths or overcome deficiencies as a part of the appraisal and development process.

Public and private sector organizations use executive development programs to help assess managerial strengths and identify potential managerial talent. Thus, selection for training and development is not as much a sign of success as it is indicative of how one performed within the training program. The opposite is true

at the highest levels--selection is as important (or, even perceived as more important) as attendance.

Public and private sector organizations often accept the Master of Business Administration (MBA) and Master of Public Administration (MPA) degrees as requisites for advancement to many managerial positions. This education is generally encouraged between the third and tenth year of a person's service. Such education is supported with tuition assistance, and often, upon completion of the degree program, the individual is rewarded with a higher salary. In most organizations, this support is the only long-term formal development many executives receive. It is supplemented with short courses and workshops in subsequent years.

A few large organizations have extensive in-house development programs with a training staff or contract faculty; however, most organizations send managers to university programs or contract seminars. Costs for these programs, within and outside the organization, are generally absorbed by the participant's work unit. Thus, "value" is reflected in the amount of money allocated by the work unit supervisor to development and training costs.

Goals of executive leadership and management development in the private and public sectors appear to focus on training managers to be more effective on the job. Most curricula reflect a practical orientation, emphasizing specific tools and techniques. A second,

and equally important, goal is to assist in identifying promising leadership talent. Thus, many firms are moving toward the assessment center concept as a short-course or workshop method. Updating managers in career tools and techniques is a third goal and includes renewal programs for top managers at rather frequent intervals. Finally, organizations recognize both an important socialization process associated with development programs and that there is value in broadening the perspectives of participating managers as they advance through the organization. Overall, executive leadership and management development move from specific tools and techniques toward the planning and conceptual skills required of the few leaders who achieve the top organizational positions.

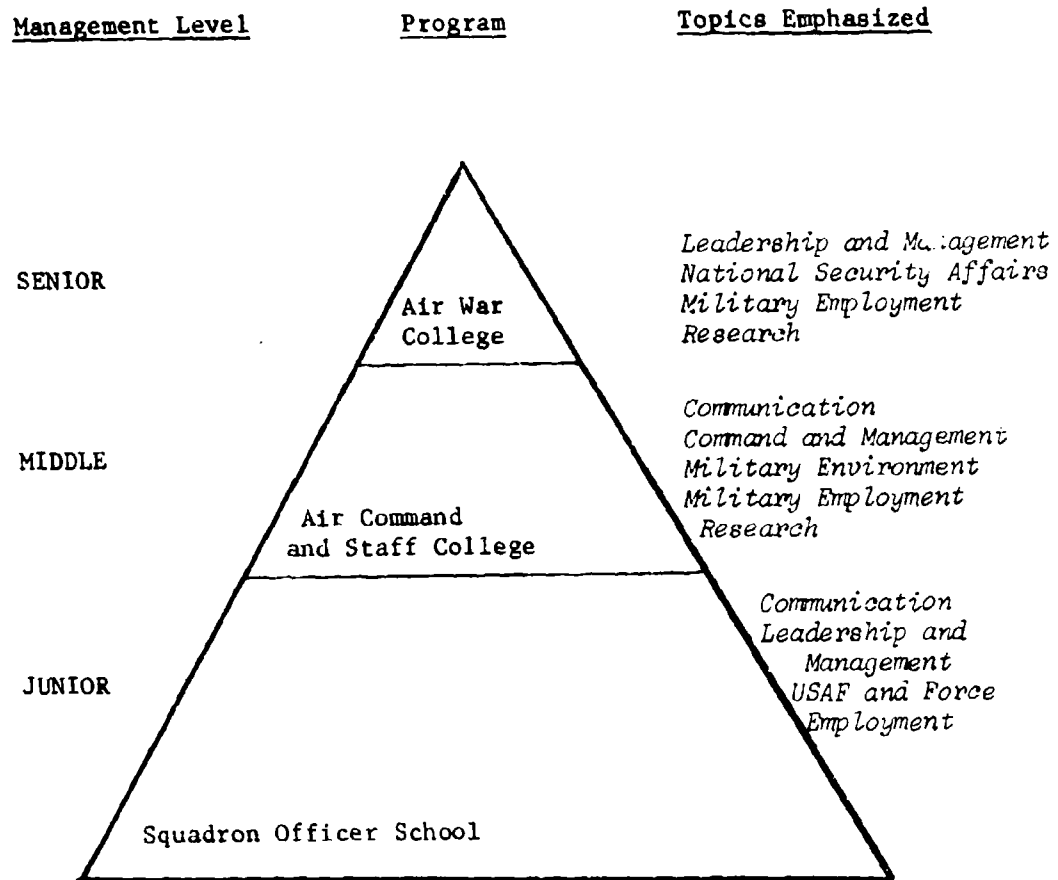
AIR FORCE PME--A MODEL.

A model of the Air Force system is portrayed in Figure 2. There appears to be a heavy emphasis of practical skills at Squadron Officer School, evolving to an emphasis of conceptual skill-building at the Air War College.

Although attendance is not a requisite for advancement to higher ranks, selection to attend intermediate and senior service schools is an important indicator of career potential at the time one is selected. Resident programs are offered to only a percentage of the officers eligible, but alternative seminar and correspondence programs are open to everyone. For many officers, selection to attend PME in residence is more important than attendance.

FIGURE 2

AIR FORCE PME:
A MODEL



Air Force PME goals focus on two specifics. First, PME is designed to prepare officers to assume the highest level of command and staff duties. Second, participants are provided current perspectives of the aerospace environment for strategic and tactical decision making. Thus, we find a dilemma. Peacetime officers want and need skill-building in the areas directly related to their current job. At the same time, Air Force leadership needs to identify those individuals who will be best prepared to lead our forces in the event of a war. These individuals must have the requisite experience and understanding of their leadership capacity at all times. There must be a sufficient number of these individuals ready at all times. PME, it appears, has attempted to fulfill both charges in the same program simultaneously. The result is often a perception among officers that the course material is not directly applicable to the job. This perception is likely exacerbated by the broad variety of career areas represented in the officer force. Developing a curriculum attractive and applicable to all officers is a nearly impossible task.

However, strong support continues for a viable professional development program. Continuous evaluation of the form and substance of PME is recommended to encourage a dynamic and evolutionary process to meet the needs of the Air Force and the officers involved.

A COMPARISON

The goals of effective leadership and management development are not the goals of Air Force PME. In the public and private sectors, development programs place a greater emphasis upon identifying talent through education and training, while, in the Air Force, those selected for training have already been identified as future leaders in the process of their selection. Differences in goals are better understood by comparing who is selected for development, when they are selected, the program format, and costs.

Who Attends

Target populations for training and development are very different. In the public and private sectors, more managers are offered resident opportunities at more frequent intervals than in the Air Force. The variety of short-course, workshop, and MBA/MPA programs sanctioned by private and public sector organizations provides a tremendous amount of flexibility regarding who can attend, for what reason, and at what point in their career.

We note that Air Force technical training is much more extensive than that in the public and private sectors. Technical training occurs at a variety of times throughout an officer's career. Thus, officers are exposed at frequent levels to training that is job-related but not necessarily related to the increased responsibilities of leadership and management. Because most

officers view education as a requisite to promotion, a large number participate in off-duty education programs. Such off-duty education reflects personal development, but this personal development is often completely unrelated to the accomplishment of a specific step in a planned career development program.

Timing

With regard to timing, junior level programs in the public and private sectors compare favorably with programs offered by the Air Force. Within the first few years, individuals are given an opportunity to develop specific on-the-job skills, learn more about their own strengths and weaknesses, and gain an appreciation of the organization and its environment.

Mid-level programs provide a dichotomy in terms of frequency, curricula, emphasis from top management, and selection. Public and private sector programs require an advanced degree in addition to a series of workshops and short courses for a large percentage of the members. Selection is based upon need, and the results of participation are used for decisions regarding promotion and salary increases. Staff skills, leadership, and decision analysis are the kinds of training most frequently covered.

The Air Force selects a small percentage (approximately twenty percent) of those available, making the selections on the basis of

past performance and leadership potential. Basic managerial skills are re-emphasized; also stressed are an understanding of the staff functions and the employment of resources available to the Air Force officer.

At the senior organizational levels, other differences emerge. In the Air Force, only a few officers are selected to participate in the resident programs; clearly, these officers are chosen for command and leadership positions. The curricula emphasize conceptual skills for the conduct of war in a complex environment. Perhaps the most important factor is that these resident programs are generally the last development effort provided top managers--occurring between the eighteenth and twentieth year of service.

Public and private sector organizations, on the other hand, offer nearly all top managers extensive programs to prepare them for the conceptual and long-range strategic challenges of leadership. Like the Air Force, only those selected for advancement are chosen; however, their development is reinforced at frequent intervals throughout their service as top managers. It is not unusual for every top manager to attend workshops and short courses at frequent intervals throughout his or her tenure.

Costs

There is no generally accepted policy in the public and private sectors for allocating money for executive leadership and management development. Most organizations use ad hoc decisions, allocating a

certain dollar amount in the budget for training and development. Managers are given specific cost targets, but decisions on how monies are to be spent are usually decentralized to the cost center involved.

In the Air Force, a very small percentage of the budget is devoted to PME. Unfortunately, the percent of budget allocated to PME cannot be compared to the public and private sectors. All attempts to build comparisons are confused by an inability to identify management development shares of education and training budgets, compounded by inconsistent organization allocations from one year to the next. Because PME resident selection is always by a central board, costs of PME are borne by the total organization rather than by decentralized cost centers. This centralized costing further complicates a comparison.

An alternative is to compare Air Force PME costs with those incurred by public and private sector organizations on a micro-level. The methodology we selected is the cost per contact hour per graduate. This technique does not take into account substantive differences or length of course in the Air Force compared to public and private sector workshops and short-course offerings. Further, we are unable to adequately compute all of the opportunity costs of program participants being away from the job, training replacements, or the alternative uses of buildings and equipment.

Using the method described above, we find that costs are comparable when evaluating Air Force PME and the more popular

public and private sector course offerings. Figure 3 provides a summary of our cost calculations while the Cost Analysis Appendix provides a detailed explanation of our methodology.

Comparing the Models

In comparing the program models, several important differences are noted. First, Air Force programs seemed to spend more time covering common topics than do private and public sector programs. An example, provided in Figure 4, focuses on the topic areas of communicative skills and management/leadership principles. No correlation is implied between the time spent and outcomes achieved. Although the cost per contact hour per graduate is similar, it would appear that Air Force programs involve the student longer in accomplishing skill building in these two topics than do public and private sector programs.

As suggested above, a significant contrast appears at the senior management level. As portrayed in Figure 5, program lengths vary considerably. The shorter length of most training given to senior managers in the public and private sectors is offset by more frequent program attendance during a career. We suggest that this contrast to the Air Force is partly due to the relatively short career of the military leader when compared to his civilian counterpart. However, longevity should account for only some of the differences in format and content.

FIGURE 3

COST PER CONTACT HOUR PER GRADUATE COMPARISONS OF
AIR FORCE PME AND PRIVATE/PUBLIC SECTOR
DEVELOPMENT PROGRAMS*

Management Level	Air Force**	In-House Programs	Academic/ Contract Programs
Junior	SOS - \$23.32 (275 hr)***	General Electric (GE) - \$28.10 (150 hr)	Univ of Mich - \$34.50 (30 hr)
Middle	ACSC - \$21.76 (1091 hr)	General Electric (GE) - \$28.10 (150 hr)	Univ of Mich - \$31.33 (30 hr)
		Federal Executive Institute (FEI) - \$21.00 (105 hr)	Harvard - \$19.72 (435 hr)
Senior	AWC - \$32.45 (870 hr)	General Electric (GE) - \$30.76 (150 hr)	Harvard - \$22.19 (435 hr)
		Federal Executive Institute (FEI) - \$17.20 (245 hr)	American Management Association (AMA) - \$26.79 (120 hr)

* Cost per hour per graduate in dollars. Non-AF courses include tuition, \$215 travel, and \$50 per diem daily.

** Costs include: direct and indirect personnel costs, unfunded military retirement, command support; student pay is not included.

*** Contact hours of instruction. Note that total program hours for AF courses are greater than contact hours.

FIGURE 4

COMPARISONS OF CONTACT TIME DEVOTED
TO SELECTED PROGRAM TOPICS

	<u>Program</u>		
	<u>Air Force¹</u>	<u>American Management Association*²</u>	<u>University of Michigan³</u>
COMMUNICATIVE SKILLS	SOS - 35 hr	6 hr	5 hr
	ACSC - 268 hr	3 hr	7 hr
MANAGEMENT/LEADERSHIP PRINCIPLES	SOS - 110 hr	30 hr	24 hr
	ACSC - 241 hr	24 hr	24 hr
	AWC - 138 hr	-	80 hr

* As separate workshops or segments of multi-topic workshops;
typical of a broad range of available offerings.

Comparisons made on the basis of similar program topic content.

¹ Air University Catalog, 1978-79.

² American Management Associations Course Catalog, July-December 1979.

³ The University of Michigan Management Seminars Catalog, July 1979-
June 1980.

FIGURE 5

COMPARISON OF SENIOR-LEVEL PROGRAMS*

	Air Force	Carnegie Mellon	Michigan	Pittsburgh	Stanford	Stanford-Sloan
Length	10 mo	9 wk	4 wk	8 wk	8 wk	9 mo
Cost (including room/board)	\$28,247	5,500	2,800	5,200	6,250	25,000 (includes daily \$50 per diem expense)
Number in Class	230	50	45	36	180/3	42
Average Age	37	43	41	42	42	37
Level of Management	SR	SR	SR	Mid-SR	SR	Key Mgrs
Topics Covered						
Policy/Strategy	X	X	X		X	X
Acct/Finance		X	X	X	X	X
Quant Dec Analysis	X	X		X	X	X
Economics	X	X	X		X	X
Beh Science	X	X		X	X	X
Marketing		X	X	X	X	
Organization		X				
Sociology			X			
International Affairs/Business	X			X		X
Research	X			X		
Military Unique	X					

*Data from Air University catalog and individual program brochures.

Perhaps comparing Air Force PME with programs provided officers in other countries might be a more appropriate analysis. When we view Figure 6, we see that other countries have more extensive PME programs for longer periods of time than does the Air Force. There is a wider use of competitive exams for selection, providing an incentive for the officer to prepare for attendance through self-study. Examinations also give a measure of importance to PME. Finally, when examining the other programs, there appears to be a greater officer involvement in continued PME in the countries studied.

SOME CONCLUSIONS

A portion of the Air Force PME curricula is common to public and private sector programs. This reflects a common need for leadership/management skill development in large organizations. At the same time, if one progresses to the senior management levels of the Air Force, the emphasis shifts to military-specific topics of strategy and tactics. This can be casually compared to the public and private sector focus on planning and strategic decision making, but now we are referring to significantly different kinds of requirements and aims.

The conduct of war, tactics, and employment of forces are national security issues, having no counterpart in the public and private sectors. It is clear that they are best offered in-house.

FIGURE 6

COMPARISON OF AIR FORCE PME WITH PROGRAMS IN OTHER COUNTRIES*

Level	USAF	USSR	UK	Israel	West Germany
<u>Junior</u>	Correspondence 11 weeks in residence SOS	Correspondence Self-Study	10 week Command/Staff for all 0-3	9-12 week for all at Branch School	14 week Field Grade qualification/selection
<u>Middle</u>	Air Command and Staff College	Branch Staff Academy	Staff College	Command/Staff College	General Staff/S-Staff
Length: 40 weeks		3-5 years	1-2 years	11 months	21 months/3 months
For: 0-4		0-3	0-4	0-4	
Selection: Central Board		Recommendation Competitive Examination	Competitive Examination	Recommendation Competitive Examination	Performance Report Examination
Alternative: Correspondence/ Seminar		None	None	Correspondence if passed Examination	None
<u>Commanders Course</u>	Command Directed	None	Short update	Self-study and 9 week course	Two-phase course
<u>Senior</u>	Air War College	General Staff Academy	National Defense College/ Royal College of Defense Studies	National Defense College	N/A
Length: 10 months		2 years	27 weeks/11 months	1 year	
For: 0-5, 0-6		0-6, 0-7	0-6, 0-7	0-6, 0-7	
Selection: Central		Recommendation Examination	Central Board	Central Board	
<u>General Officer</u>		Short Advanced Courses			

* Data from Annex H, "Review of Education and Training for Officers," Washington, D.C.: U.S. Army, 1978.

It is also clear that, in terms of time spent in studying such topics, Air Force programs are not as extensive as the programs provided military officers of our allies and potential military enemies. Other countries appear to emphasize strategy and tactics to all officers throughout their military careers.

EFFECTIVENESS AND EFFICIENCY

There are critical methodological problems in evaluating any program of training and development. Perhaps the most important problem is that output measures have yet to be defined in education and training. In fact, most evaluation is based upon student feedback, which, in our opinion, is not a legitimate indicator of program success or failure. Some private sector organizations have attempted to apply cost-benefit analysis to development programs with little substantive evidence of success. Perhaps the most important measure we have found is in the assignment of program costs as a measure of "value." If a cost center manager is willing to spend monies on some programs but not others, we view this as a measure of effectiveness when comparing the alternative programs. Clearly, when good profits have been made, managers can and do send more people to development programs. On the other hand, during economic downturns, such commitments are reduced accordingly. Unfortunately, our literature search yields no success in attempting to define any returns to a cost center (or the organization) associated

with management development programs. In fact, the literature suggests that most top managers accept training and development at face value; they do not attempt to measure value at all.

The cost data do not provide a way to compare the several short programs characteristic of public and private organizations with Air Force PME. Career training costs are most relevant to our study but nearly impossible to obtain. We find that the Air Force is different because of its emphasis upon intensive resident programs of considerable length. The public and private sectors spend more money on training and development to provide a greater number of managers the opportunity to participate in frequent, but relatively shorter courses of training throughout their career.

The major conclusion is that executive leadership and management development in public and private sector organizations provide an incomplete model for Air Force PME. At the same time, some important comparisons and contrasts provide fruitful issues worthy of continued study.

THE ANNOTATED BIBLIOGRAPHY

Specific citations are not used in the body of this report for two reasons. First, these are our ideas and do not reflect any specific viewpoint; our attempt is to develop a meaningful descriptive model, drawing upon a wide variety of sources in establishing the generic program for the public and private sectors.

Second, it is not our intent to provide specific recommendations regarding Air Force PME. Such recommendations will come only from a more extensive study by those who define the goals and objectives of PME. To assist in such a study, we have compiled a comprehensive annotated bibliography of the relevant sources for such an endeavor. This bibliography follows on succeeding pages.

An Annotated Bibliography
of
PROFESSIONAL MILITARY EDUCATION
and
EXECUTIVE LEADERSHIP AND MANAGEMENT DEVELOPMENT

Since 1974, over 200 citations have appeared in the literature of professional military education (PME) and executive leadership and management development. A careful review of these sources yields some 130 bibliographical entries of value to the scholar and practitioner interested in the study of PME in the Air Force. Subsequent PME research should be greatly facilitated by the summaries and assessments of the books and articles that follow. Entries marked with an asterisk (*) are, in our opinion, the most valuable sources for the student of PME, and every annotation is designed to assist both the administrator and the scholar.

"Air University Programs Receive Recommendations." Contact (March-April 1974): 3.

This article announces that Air War College and Air Command and Staff College received undergraduate and graduate credit recommendations for non-resident programs--granted by the Commission on Accreditation of Service Experiences of the American Council on Education. In addition, information is provided the reader for forwarding transcripts to a specific college.

Antil, Frederick H. "Five Myths About Management Development." Best's Review (September 1974): 92-98.

"Management development provokes controversy" is the thrust of this article. At one extreme, executives are proud of their programs; at the other, managers doubt the value of such programs. Reasons for management development programs going awry are categorized into five myths of management development:

(1) "Nobody knows what management development really is." Management development is really creating a management team that can attain organizational objectives. There must be complete dedication to management development from the top down if it is to be successful.

(2) "We don't need it." Yet, cost cutting moves of companies have increased the need for management development. The managers who remain face greater responsibilities.

(3) "It doesn't work in my department." When this story is told the problem lies with the executive and not the subordinates. Management development works where management makes it work.

(4) "You can't tell if it's effective." Evaluation is difficult but not impossible. There are four categories for measuring the effectiveness: What is the reaction of the participants? Has learning occurred? Has behavior changed? What are the end results in operations? Effective management development should change behavior. It is unwise to develop behaviors that are not compatible with the type of organization and will not be reinforced back on the job. In almost any department, improved results might be found in reduced turnover, fewer errors, increased productivity. Additional measures can be formulated by using ROI measures.

(5) "It's Personnel's responsibility." Every manager is responsible for ensuring that his subordinates are properly trained. People learn most effectively when these factors are present: (a) a personal need which the learning can help satisfy, (b) an opportunity to experience some reward or to avoid punishment, and (c) some kind of feedback that helps the individual assess the value of the learning to him. One's immediate supervisor can provide these factors for an individual better than a personnel staff.

Anundsen, Kristen, and Mankoff, Albert W. "How to Start a 'Guided' Revolution." Personnel (March-April 1976): 32-40.

An accounting firm undertakes an Awareness, Action, Excellence experience involving simulations, films, experiential exercises, discussions, and readings. Actual perceptions of this top management program are reported with an emphasis on the renewal and change effects encountered by the firm.

Atkeson, Brigadier General Edward B. "Military Art and Science: Is There a Place in the Sun for It?" Military Review (January 1977): 71-81.

The author briefly describes the evolution of the Army War College curriculum, noting the present series of electives and graduate-level transfer credit character of the program. A general discussion of a "traditional" and "progressive" view of the curriculum leads to a conceptual definition of military art and science. Such a course of studies should focus on strategy, force development and military management by serious scholars in the military. A case is made for such a curriculum evolution in the Army War College.

Baily, Lieutenant Colonel Clentis W. "Senior Professional Schools: The Air Force and Business Approaches." Maxwell Air Force Base, Alabama. Air War College Report No. 4066, November 1970.

This paper provides an excellent overview of executive/management development programs in business. Business focuses on human relations, communications, decision-making, planning and problem-solving. At the time of the study, few firms had large in-house programs. Most firms rely on university or outside presentations on a regular and frequent basis for their executives. There are similarities in the Air War College curriculum, but this unique in-house program allows for greater depth with few similarities to the business model.

Barth, Anthony L., and Engfer, Roger I. "The Agway Management Development Program: Design and Implementation." Personnel Journal (July 1977): 342-347.

The Agway Management Development Program consists of on-the-job training, field trips and assignments, and continuous feedback from the trainee. This program is presented as a conceptual model along with a description of how it is implemented.

Bayne, Vice Admiral M. G. "Professional Military Education, A Precious National Asset." Washington, D. C.: National Defense University Research Directorate, 25 April 1976.

This is a very articulate and learned piece on the development and need for a professional education system

for the military officer corps. The European (Prussian) heritage and the evolution of professional military education in the United States are traced. The current (1976) system is described with some warnings about the need for increased emphases in light of decreasing resources and the changing technologies affecting the military environment.

Begland, Captain Robert R. "Officer Education and Training in the Army: An Alternative Solution." Military Review (October 1978): 15-26.

Officer training in the Army is criticized with regard to four decisions that must be faced: "What to train, where to train, how to train, and finally, when to train." Early training is oriented toward proficiency, followed by generalized training in the Command and General Staff College (CGSC) and the Army War College. The author suggests a standard for efficiency and effectiveness: "Is the Army fielded today capable of deterring armed conflict and of engaging in and winning any future conflict?" He goes on to suggest that training programs should be career-based as opposed to school-based. Field development should precede resident school attendance and Army War College attendance should not require CGSC graduation. Finally, he suggests that non-combat support officers do not need to attend CGSC.

Blair, Captain James A. "Improving Professional Military Education: Is the Two School System an Answer?" Air Command and Staff College Thesis, June 1966.

This study investigates the professional military education structure of 1966 to determine its adequacy. Conclusions are based on information from the commanders of alumni. Survey data represent information from the 1962-1964 graduates of the Squadron Officer School (SOS). The study indicates that SOS graduates showed moderate improvement in most of the areas covered. The author feels that Air Command and Staff College should occur at about ten years service rather than twelve years. He proposes that the three-level system be changed to two levels, eliminating SOS and making correspondence courses mandatory. ACSC would be the first level between six and ten years commissioned service and student enrollment would increase to 1000. Air War College would remain the same as now. Officers are college graduates and get responsibility early so SOS is really not necessary. The recommendations are largely based on opinion except that the dollar savings by eliminating SOS would cover the costs of increased attendance at ACSC. Also, the Air Force spends money on SOS for officers who leave the Air Force; a six-to-ten year point for ACSC would include those officers most likely to remain in the Air Force as a career.

Bradburd, Zelda Stern. "Back to College: Mid-Career Executives Study Liberal Arts." Finance Magazine (August 1977): 37-40.

There are four executive liberal arts programs in the United States, and this article focuses on the Williams American Studies Program. The author thinks the use of such programs may be increasing because of a need to develop the whole person. The director of the Williams program believes the program may strengthen bonds between the company and its executives; 90 out of 100 alumni are with their original companies. Some organizations consider such programs frivolous, but companies like AT&T, Citibank, General Motors, and IBM send executives to Williams and believe that, even though benefits cannot be quantified, they are real.

Braun, Alexander. "Assessing Supervisory Training Needs and Evaluating Effectiveness." Training and Development Journal (February 1979): 3-10.

After pointing out that the federal government spent 24-1/2 million in 1976 on short-term training (excluding student salaries), the author describes a specific program used in a California national forest. Development programs are focused on first line supervisors, employing a questionnaire to identify abilities and degree of importance as related to the job. These were emphasized in a 4-day training course. At the conclusion of the course, each trainee was asked to write objectives of how learning would be applied back on the job.

Brethower, Karen S., and Runnlu, Geary A. "Evaluating Training." Training and Development Journal (May 1979): 14-22.

The authors propose a general systems model for evaluation to include the dimensions which might be evaluated. An evaluation matrix is presented but without specific criteria. The difficulty of identifying cause and effect is highlighted. The authors identify four signs of good training: (1) trainees like training; (2) trainees learn; (3) trainees use what they learn; (4) organization experiences a measurable benefit. Trainees must accept the fact that evaluation results are not clear cut.

Brown, Ralph J., and Somerville, James D. "Evaluation of Management Development Programs . . . An Innovative Approach." Personnel (July-August 1977): 28-39.

The article presents a normative return-on-investment (ROI) model. Practical tools should include ROI to provide a measurement of management development programs. Unfortunately, the determination of quantitative performance factors for programs is difficult to define in detail. The model is good and the article is well-written.

Bruenner, Lieutenant Colonel William. "A Comparison of Professional Military Educational Systems." Air University Review (March-April 1971): 53-62.

This article compares USAF, British, and German military educational institutions. Pedagogy, philosophy, and problem areas of the programs are discussed. The German Armed Forces Staff College (GAFSC) occurs during the sixth year of commissioned service. It is a two-year course to determine promotability to major and preselection for a general staff officer track. Future plans will make German programs closer to the USAF three-tier system. The Royal Air Force offers a two-month Junior Command and Staff course. This is followed by a two-year individual studies school which qualifies officers to attend the RAF Staff College. There is also a senior level Air Warfare Course (5-1/2 months) and even higher level courses. German and British systems avoid curricula overlap because of a building block nature of the courses. RAF and German systems link promotion and some positions to the selection and successful completion of military education programs.

Buchter, Captain Richard F. "The Education of the Professional Soviet Air Force Officer." Air Command and Staff College Thesis. Maxwell Air Force Base, Alabama, May 1965.

Although dated, this paper presents a well-developed exposition of Soviet professional military education for air officers. This is an interesting perspective, forcing the reader to make some cogent comparisons and contrasts to the USAF system for officer professional military education.

"The Business of Training Managers." Business Week (July 25, 1977): 106-107.

This article reports a surge in training and information available to organizations for their managers. Several examples of the types of programs available include: commercial, in-house, and university sponsored. There are more than 1000 suppliers with over 3000 programs. The greatest increase is in training middle- and lower-level managers with the emphasis on "developing" their managerial talent. A comment is also made regarding one firm that is in the business of evaluating such programs. Measuring the results of management training is a concern of top executives, and companies are looking for better answers.

*Campbell, John P.; Dunnette, Marvin D.; Lawler, Edward E. III; and Weick, Karl E., Jr. Managerial Behavior, Performance, and Effectiveness. McGraw-Hill Book Co., 1970, 546 pp.

Chapters 10 through 13 examine and summarize the written literature on the topic of management training and

development. Chapter 10 describes various programs labelled "information presentation techniques, simulation methods, and on-the-job practice." Chapter 11 is entitled, "Applications of Basic Research and Theory." Chapter 12 looks at training evaluation and distinguishes internal and external criteria. Chapter 13 is entitled, "Empirical Studies of Training Effects." The chapter reviews evidence relating to the effects of training and management development programs. There is a lot of research on short-term effects but little for long-term retention. There is evidence that attitudes about human relations can be taught. The bulk of research focuses on a few techniques. Most studies used internal criteria, and it is difficult to relate the external criteria that were used to organizational goals.

Caudill, Lieutenant Colonel James E. et al. "An Examination of the Air Force Professional Military Education System." Maxwell Air Force Base, Alabama. Air War College Report No. 5208, April 1974.

After a lengthy description of what Air Force and Army professional military education is at the time of the writing, curriculum comparisons are made between Air War College and Air Command and Staff College. All of the interesting questions are eliminated in the assumptions while lists and outlines comprise the bulk of the data. The bibliography is comprehensive, but there are few conclusions.

Channon, Lieutenant Colonel James B. "Preparing the Officer Corps for the 1990s." Military Review (May 1978): 10-23.

Starting with an attempt to structure the environment of the 1990s, the author sorts out several implications for the U. S. Army and its officer corps. Leadership skills will need to be more practiced, particularly with regard to interpersonal relationships. Quantitative applications, dynamic forecasting and decision making, model building, designing effectiveness/efficiency measures, and risk-taking are the skills needed for the future. Changing communication skills are elaborated. In sum, technical depth and organizational effectiveness are added to the combat and management skills of today in preparation for the 1990s.

"Continuing Education in the Professions: Current Information Sources." No. 24, Syracuse University, New York (September 1969): 100 pp.

A 225-item, annotated bibliography of professional continuing education sources, this paper includes material on education and training for public administrators, the military, and educators, in addition to several other professions.

Cook, James R. "Management Training? Don't Waste Your Money!" Supervisory Management (February 1978): 30-37.

Training programs alone can't produce gains in work performance unless on-the-job reinforcements of training take place. The article focuses on how the gap can be bridged using two assertions: (1) "line managers must be held responsible for the implementation of training material," and (2) there should be "a workable format to be followed by these managers" to insure implementation.

A trainee's "enthusiasm will quickly dissipate if the trainee's boss does not actively support, reinforce, and even require that the principles learned in training be used." Managers should follow through on training. Supervisors should assign jobs that will require the trainee to use the skills learned. In sum, a trainee should know that his/her boss is truly interested in training.

Craig, Major William E.; Davis, Major Earl E., Jr.; and Young, Major Ronald E. "A Survey of Selected Graduates of the Air Command and Staff College Associate Seminar Program to Determine the Value of this Program to the Air Force." Air Command and Staff College, Research Study, May 1977.

The study presents the results of a survey sent to 1933 officers who completed Air Command and Staff College by seminar between January 1974 and October 1976. Using a Likert scale ranging from -4 to +4, the overall program rating was +1.339. All of the courses were rated positively but none achieved a rating of +2 or higher. This study suffers from the nemesis of similar research efforts in using graduates' perceptions to determine if a program is beneficial. A table shows comparison of values for students who only took the seminar program and those who took a mixture of correspondence and seminar. Every course had a lower rating when correspondence participants were included. No value judgments are made regarding the degree of positiveness of ratings that would be considered "acceptable."

Dawson, Lieutenant Colonel Dale B. "United States Air Force Professional Education Program: A Follow-on to the Alpha Report and its Implications for the Air War College." Maxwell Air Force Base, Alabama. Air War College Report No. 5570, April 1975.

Essentially a report of facts and figures, the alpha report is reviewed and a few superficial recommendations made. The recommendations are not well-developed, particularly with regard to the combining of Air War College and Air Command and Staff College into a single school. There is little value in the study because of the lack of development in the major topic areas.

Dent, Major David R. "Roles of PME in Officer Development." Air University Review (July-August 1975): 93-98.

Professional military education (PME) is advocated for professional growth and advancement. Awareness of the Air Force, exposure to current problems, management techniques, and communication skills are the elements of professional growth that can be attained through the "significant learnings" associated with PME. Education is achieved through surrogate experiences of the resident programs. The article is an opinion piece, supporting the concept of PME in a very general way.

*Department of the Army. Review of Education and Training for Officers (RETO). DACS-OTRG: Washington, DC 20310, 30 June 1978, 5 vols.

This study represents a one-year effort of a working group dedicated to studying all Army education and training efforts. A general model is presented with reviews of precommissioning, branch courses, mid-career, and senior level education and training activities described in detail. Other services and armies are studied along with industry and university programs relevant to the study. Each officer specialty is studied in detail and several sections are devoted to ancillary topics such as commitment, professionalism, and officership. Professional military education (PME) recommendations include the establishment of a Combined Arms and Services Staff School for all officers selected for major, a reduction to 20% of officers selected for attendance at the Command and General Staff College, a precommand course for all commanders, increased war gaming at the Army War College, and continuing education of general officers. The group proposes a 10-year incremental adoption of all the recommended changes. This study is lengthy and somewhat tedious. Nonetheless, it is a critical reference for the student of PME.

"Developing Specialists into Potential Top Managers." International Management 30:3 (March 1975): 23-26.

A management development program called Midstep (management in depth and selective training and experience program) was instituted at the United Kingdom's Standard Telephones and Cables Ltd. Some 80 candidates are in the program with 30 replaced each year. This is an individually tailored program aimed at training engineers and technical specialists for management positions. After screening, job rotation, exercises, presentations and discussions are incorporated in the program. This is clearly an intensive program with high importance but selective and expensive because of its individual orientation. The article is interesting but of questionable value for especially large organizations.

Deviney, Colonel Alton H. et al. "Comparative Analysis of Perceptions of AWC Attendance." Maxwell AFB, Alabama: Air War College Report No. 5225, April 1974.

A longitudinal study of student and alumni perceptions of the value of Air War College (AWC) yields a few general conclusions for the selection of students, the curriculum, and follow-on assignments and promotions. The authors note an inconsistency in data collection in the survey which is a relevant point worthy of remedy. Attitudes toward AWC are generally good, but there is not a great deal of consensus regarding the value of selection and attendance. Student comments show a bias that the National War College has more prestige. The conclusions are general and lack a specific action orientation. This is interesting reading nonetheless.

Diberadinis, James Peter. "Approach to Management Development." Journal of Systems Management (August 1977): 16-18.

A critical look is given to job-task analysis, self-actualization, and the systematic contingency approaches to training. The author concludes that the nature of the task, structure of the organization, and the environment must be analyzed before deciding on a training program that is relevant both to the individual and the organization.

Digman, Lester A. "How Well-Managed Organizations Develop Their Executives." Organizational Dynamics (Autumn 1978): 63-80.

An in-depth study of ten of the best managed companies and a survey of 59 others focused on their management development practices. Variations in programs related directly to the organizational philosophy. The emphasis at AT&T is on selection using assessment techniques rather than just past performance. There is no formal in-house development and currently a cutback on university programs. IBM has a one week course for new managers and continued training for experienced managers is scheduled every year and a half. New first-line supervisors take a self-study fundamentals course. New managers attend a one-week IBM Management School I, with Management School II repeating every four years thereafter. Before promotion to the executive level, middle managers attend an advanced three-week school. Experienced executives attend an annual three-week program, while seasoned executives take a general one-week seminar refresher each year. Raytheon has three levels: (1) supervisory--which is in-house, (2) middle management--which is decentralized, and (3) upper middle management--which is required for upper level candidates, conducted two days a month over ten months at corporate headquarters. The author concludes that no two

companies follow the same approach. However, all work on the premise that most development occurs on the job, and can only be assisted by formal training.

Most companies surveyed focus on in-house programs that can be geared to specific needs. Each organization considers subordinate development an important part of manager's job. Job rotation is common as 15 percent of the managers rotate in any given year. On-the-job development is frequently supplemented with training which tends to be specific; 70 percent of the companies surveyed provide assignments that require use of these specific skills.

Typical skills in training sessions at the supervisory level involve handling company procedures, communication, and motivation; at middle levels training includes performance evaluation, time management, and MBO; executive level training includes effective decision making, external environment, handling stress, and developing strategies. About ten percent of managers at the executive level receive training, 20 percent at the middle level, and 25 percent at the supervisory level. In the typical company, supervisors receive training every four years, middle managers every five years, and executives every ten years. In 82 percent of the companies, self-development is important for promotion consideration. The author discusses trends that the survey uncovered including a trend towards developing specific skills, more in-house programs, and assessment.

Dittrich, J. E. "Management Development in Non-Business Organizations: A Design and Its Environment." Journal of Management Studies 15 (October 1978): 340-346.

A program was established and evaluated for a comprehensive mental health care faculty. It incorporated programmed instruction, case studies, experiential exercises, and brief lectures in eight, two and one-half hour sessions. Brief review sessions were held as well. The author presents an analysis of each four-week segment with comments from participant interaction and reaction. Then, the Miner Sentence Completion Scale was given six months after the program--in addition to a review test. A random group of college students was used as a control group. Retention of the workshop group was remarkably high, adding zest to participant feelings about the program. The article is a valuable piece generating ideas how technically qualified non-management people can be trained for management responsibilities.

"Does Management Development Pay?" Personnel Management 8 (April 1976): 17.

Research conducted by Pat Prynne and Geoff Wood at Sheffield Polytechnic revealed that the best performing companies in their study paid the least attention to management training and development. Seventy companies were included in the survey. The authors hypothesized that the poor performing firms were adopting programs to improve their performance while the top firms felt development programs were not needed. They conclude that measuring cause and effect is the most difficult task making management development assessment difficult.

Dorger, John M. "USAF Officer PME in the 1980s: A Look at the Air Force Need for Professional Education in the Coming Decades." Maxwell AFB, Alabama: Air Command and Staff College Thesis, May 1979, 96 pp.

This is a very good study supporting a need for increased emphasis on professional military education (PME) in the future. The author points to the dynamic international environment, declining resources for defense, a growing need for military professionalism, and the changing nature of war and military weapons as foci for professional development efforts in PME. Recommendations include a defined need for senior Air Force leaders to: Formally recognize and support an increased need for PME; Provide Air University emphasis on new pedagogical technologies; and Develop an Air Force study group to explore PME alternatives. The study is well-written and the arguments are convincing.

Dullea, James F. "Developing Managers for the Senior Executive Service." Training and Development Journal (January 1979): 50-53.

The Civil Service Reform Act of 1978 includes a mandate for developing executives. The public is angry about poor performance so competent executives are needed. Determination as to how the mandate is to be met has been delegated to the agencies. The author points out that executives will be able to receive bonuses of up to 20 percent of salary based on performance when the details of law are worked out.

*Dupuy, Colonel T. N. (Ret). A Genius for War. Englewood Cliffs, N. J.: Prentice-Hall, 1977, 362 pp.

This book is an absolutely superb narrative of the German Army and general staff evolution from 1807-1945. The entire book should be required reading for students of military strategy and professional military education (PME). Chapter 16, "Less than Supermen" is of particular interest

as Dupuy credits the incredible skills of German officers to professionalism and discipline, and a superior knowledge of strategy and tactics. The complex development of the German officer was founded in a well-defined study of the conduct of war. Indirectly, Dupuy makes an excellent case for the PME needs of all officers but particularly the senior staff, concentrating on the requirements for preparing for the future.

Dyer, William G. "What Makes Sense in Management Training?" Management Review (June 1978): 50-56.

Traditional curricula of universal management principles are being replaced by programs that meet the needs of individual managers. Today's training should identify specific behaviors that characterize effective managers in a variety of situations. Although a manager's style is relatively stable, organizational situations call for different actions, and managers must be taught to identify and diagnose the situation. How such a training program can be developed is detailed in the article.

Egger, Rowland A. Criteria that Should Inform a Doctrine of Mid-Career Education. Prepared for Conference on University Education for Mid-Career Government Officials, February 1966, 23 pp.

Mid-career education introduces a student to the universals so he sees that a specialized experience fits into a broader field of theory and principle. Mid-career employees selected for education have demonstrated technical qualifications, and they have demonstrated that they work well in an organization, showing promise of being able to transcend technical competence. The author feels that those selected for university programs are "the better of the second-rate minds" because public service does not attract "whiz-kids." One purpose of mid-career education should be to broaden a person's horizons and provide an understanding of the U. S. government and a vision of the nation's goals. Individuals should have an appreciation for quantitative tools without destroying common sense, understand staff work, and develop "administrative entrepreneurship."

Eggert, George R. "Management Development: Destroying Myths, Solving Problems." Data Management (October 1977): 48-50.

Management development is defined as dedication to creating a management team that can attain the organizational objectives in terms of efficiency and preparation for advancement. The author stresses a necessity for top management support for management development. Effectiveness

of programs is based on four criteria: participant reactions, evidence of learning, notable behavior changes, and results of operations. One comment suggests that it is unwise to "develop" behavior in training programs that will not be reinforced back on the job.

"The Emperor's Clothes." Training and Development Journal (June 1979): 50-60.

This article was written by members of the Training Research Forum at Harrison House in July 1970. An approach to analysis and design of development programs focuses on a common core of management skills involving the handling of people. Managers need to learn how to identify behavior considered desirable in subordinates so it can be reinforced. Coordinating functions, MBO, individual problems, and environmental problems are the major topics managers need to understand. Finally, any program design should have active top level support.

Everard, Lieutenant Colonel H. F., R. E. "A Unique Staff Course?" Army Quarterly (July 1974): 491-500.

This is a rather technical article on the evolution and philosophy of the present Canadian Armed Forces staff course, relating the curriculum to the needs of a unified force structure.

Executive and Management Curriculum: General Management Training Institute, FY 1978. Chicago, Illinois: Civil Service Commission, Regional Training Center, 1975, 14 pp.

This document provides course offerings, dates, locations, and charges for each course. Examples are a 5-day Advanced Management Seminar for \$225, a 5-day Executive Seminar for \$150, a 5-day workshop for Middle Managers for \$140. The document also provides objectives and a description for each course. This booklet is useful for cost comparisons and is updated yearly for use by Federal Civil Service managers.

Ford, Major Donald H. "An Attempt to Quantify the Professional Military Education Needs of ACSC Students." Air Command and Staff College, Research Study, April 1977.

The study hoped to quantify the skills and knowledge necessary for all Air Command and Staff College (ACSC) graduates. The author examined the jobs ACSC graduates fill as reported in a 1969 survey by the Human Resources Laboratory and ACSC graduate surveys. Information from graduate surveys "indicated that officers generally felt they had profited less from the year at ACSC than they had expected to," the

majority still felt "they were prepared to assume staff duties after graduation," and had a positive attitude toward ACSC. The author stated that the data examined did not lend itself to arriving at a quantified list of knowledge and skills. All sources examined showed a need for oral and written communications skills. Finally, the author recommended a survey to identify tasks and functions, percentage of time, and officers perceptions of the relative importance of the tasks and functions for field grade officers.

Forge, John, and Thompson, John. "Defining the Training Goals." Industrial Management. London (September 1978): 21-25+.

The authors suggest ways for employee training to be successful: (1) talent should be recognized early, (2) right people should be in the right job, and (3) people should want to improve. Authors interpret the Blake-Mouton grid model in stating that training should seek to improve skills while making people more aware of their own strengths and weaknesses. Calling for a need to set objectives from short-run to long-run, agreed on by the trainee, and measurable. They also state that everyone should be made aware of a standard of performance in writing.

Freedman, Richard D., and Stumpf, Stephen A. "Critical Analysis of the State of Research in Management Education." A paper presented at the 39th Annual Meeting of the Academy of Management, Atlanta, Georgia, August 1979, 50 pp.

The paper critiques research presented under the auspices of the Academy of Management from 1974 to 1978. The papers are organized into descriptive, theoretical, pedagogical, teaching and course evaluation, and normative categories. Many of the descriptive papers relied on surveys and were of limited value because it appears that survey instruments were not carefully constructed and samples were too small to generalize. Theoretical papers addressed issues from specific teaching techniques to developing models. Most papers dealing with techniques fail to take into account the differences in instructor behaviors. Other theoretical papers looked at management education from a broad perspective. Many people are concerned with relevance but few explain or define it operationally. The authors do not feel the theoretical papers provide a good framework for conducting research. Pedagogical papers were largely concerned with presenting teaching methods or evaluating programs or methods. Some of these papers offer novel teaching methods but claims of success are unsubstantiated. Other papers go to great length to show that their methods are valid. Start-up costs can be a very significant issue. Many papers under the category, "Teaching and Course Evaluation," focus on

evaluating learning experiences. The most common type of study looked at variables that affect ratings by students. One study found that 87 percent of business schools require some form of faculty evaluation, from student ratings to classroom visits. Most results are not generalizable. The last category is normative papers which often make suggestions about "how to" kinds of information. The authors found that most of these papers were not based on sound empirical evidence. The authors call for research that relates education to managerial effectiveness.

Gabora, H. "Making Management Development Pay Off." Training and Development Journal 32 (August 1978): 64-67.

Management development programs often frustrate those who participate because of a broad-brush approach taken to many topics which results in a lack of applicability of what is taught on the job. More important, the author is critical of the lack of follow-up consultative services to back up management development programs. Quantity is often more important than quality; gimmicks are favored over needs; "happiness" ratings are more important than documented results; and individual development is emphasized in most programs. Management development should be linked to corporate objectives, linked with an internal consulting service, employ realistic learning activities, involve the boss, and provide reinforcement. Finally, we must find out if it works. This is a readable, cogent article on an overall model for training and development. It also gives specific criteria for evaluating programs.

Gates, Ed. "New Look at the Air War College." Air Force Magazine (January 1977): 54-57.

Reporting the revised Air War College curriculum changes for 1976-77, editor Gates provides a descriptive review of the reasons and potential impacts. The subjects of airpower employment, leadership, and management have been expanded to focus more on the needs of participants.

Geller, Major Selwyn G. "An Annotated Bibliography of AWC and ACSC Students Research Studies from the Classes 1967 through 1974 on Professional Military Education." Maxwell AFB, Alabama: Air University Library, May 1975.

This compendium looks at the studies noted in the categories of administration, effective knowledge, curriculum

administration, evaluations, instruction, and theses. The number of quality papers is limited and the references appear to have little value to today's professional military education environment.

Gellerman, Saul W. Management by Motivation. American Management Association, Inc., 1968, Chapter 6, pp. 101-118.

Chapter 6, "The Enlargement of Competence," deals with management development. Gellerman discusses three strategies of development: the jungle theory, the education theory, and the agricultural theory. Jungle theory is the most popular and the least effective assuming that talent will show up against competition. The education theory stresses the idea that management skills can be taught. A problem in most programs is timing as training does not occur when a manager needs it. Gellerman feels that if management training is worthwhile at all then it should be periodically repeated; he feels ten times in a career would not be too often. The agricultural (or grow you own) approach is based on assigning managers to positions for which they are not yet ready, and then providing feedback (both performance and promotability), coaching, and career counseling.

Glick, Major Howard H. "Academic Degrees for ACSC." Air Command and Staff College, Research Study, May 1975.

The author proposes that the Air Force should pursue "degree granting authority" for Air Command and Staff College (ACSC). He discusses the military as a profession, stating that in only one criteria does the Air Force fall short of being a profession and that is lack of a professional academic association. The Army succeeded in gaining the right to confer a degree of Master of Military Art and Sciences after graduation from Army Command and General Staff College, but only to selected students. Surveying the ACSC class of 1975, he found that 48 percent of students enrolled in off-duty master's programs. Ninety percent of the students indicated they would like to participate in a MMAS degree if it were offered, and 57 percent would obligate part of their VA benefits to do so. Finally, the author discusses views (like decreased flexibility) to the masters degree program, and he concludes that Air University should pursue degrees for ACSC and present a plan for obtaining accreditation.

Gole, Major Henry F. "Education for Leadership." Marine Corps Gazette (December 1972): 18-26.

In a lucid, well-developed article, the author makes a distinction between a technician of violence and a philosopher of war. Because the United States has not decided what it expects of a military leader, and because the great officers have been educated "between wars," the technician has evolved at the expense of a military scholar. Written from an excellent historical perspective, the article highlights the demise of the brilliant military thinkers. Professional military education is described currently as vocational training. A strong argument is made for greater intellectual development. This is a stimulating and compelling piece.

Groves, Dr. Kenneth J. "Air University and the Professional Education System." Air University Review (July-August 1975): 10-27.

The author presents a commemorative piece on the twentieth anniversary of the Air University. Professional military education, specialized professional education, and continuing education programs are described from a historical development perspective. Major issues are identified as purpose and objectives, curriculum content, accreditation, numbers and kinds of students, faculty, the role of student and faculty research, costs, and accountability.

Guglielmino, Paul J. "Developing the Top-Level Executive for the 1980s and Beyond." Training and Development Journal (April 1979): 12-14.

The author emphasizes the need for developing conceptual skills in managers, especially top-level managers. Examples of needed skills include decision making under uncertainty, understanding the environment, and thinking as an entrepreneur. Responses of directors of training of Fortune 500 companies and mid-level managers in the U. S. indicate a consensus that thinking as an entrepreneur is very difficult to teach. This article also points out that respondents felt that on-the-job training was most effective for decision making under uncertainty and for identifying opportunities and being innovative, while formal courses were most effective for understanding the environment, organization structure, and multi-national planning.

Guwang, William C., Jr., and Vosse, John M. "The Air Command and Staff College Nonresident Seminar Program: An Analysis of Student Critiques." Maxwell AFB, Alabama: Air Command and Staff College (AU), May 1977.

Six hundred and forty-two letter critiques from Air Command and Staff College (ACSC) nonresident seminar

participants were evaluated. This formal critique was a program option between 1 December 1975 and 1 April 1976, designed to address three specific questions. First, reasons for participation include: promotion, interpersonal relations, get ACSC on the record, and a feeling that the seminar was preferable to correspondence. Second, reasons for remaining in the program were similar. Third, recommendations for improving the course focused on course material (updating), curriculum, methods of evaluation, and seminar organization.

Handy, Charles. "Pitfalls of Management Development." Personnel Management 6 (February 1974): 20-25.

A proposition is advanced that organizations have cultures which result in the way work is organized and how people are rewarded. Traditional management development for one culture may not be at all appropriate for another culture. The power culture depends on a central power source with management development really an apprenticeship--the individual is important. The role culture emphasizes the job and is most often called a bureaucracy. Here, management development is an investment decision like any other economic decision of a firm. The task culture is job or product oriented and project or task groups provide flexibility. This is an ideal culture to most with emphasis on groups, expert power, and rewards based upon performance. In addition, each individual takes responsibility for his own learning. Finally, the person culture is oriented to the individual, and the individual's needs and desires are subordinate to the organization. Thus, the basic approaches to management development are: (1) power culture--modelling, (2) role culture--absorption, (3) task culture--discovery, and (4) person culture--immersion. This is a fascinating article, providing important insights to management education and development.

Hann, Captain Stephen D. "A Proposal for an Individualized Curriculum at Air Command and Staff College." Maxwell AFB, Alabama: Air Command and Staff College Research Study, May 1977.

The reader must accept an implicit assumption right from the start, which is that Air Command and Staff College must recognize the specialized needs of the students as opposed to a general curriculum applicable to all officers. The trouble with this assumption is that the background of the students does not portend their future value to the Air Force. Nonetheless, the author does an excellent job making a case for individualized curricula employing computer aided technology. The report is well-written and well-documented.

Hart, G. L. "A Workshop Approach to Improving Managerial Performance." Research Management 20:5 (September 1977): 16-20.

An IBM lab introduced a Career Development Workshop for scientists and engineers to gain management training and experience. The professional personnel were apprehensive about leaving their job area for any length of time so a workshop format was adopted. A one-to-one staff/participant ratio was employed for a three and one-half day session. Performance results at the workshop were not put in the personnel file, making it a learning experience rather than an evaluation tool. After the workshop, the staff prepared a comprehensive report of strengths and weaknesses for the participants. This appears to be a worthwhile approach for well-educated professionals and the piece is easily read and understood.

Harvey, David. "How Coverdale Stiffens the Backbone of Management." Director 30 (September 1977): 59-60.

Practical experience and self-development are the keys to the Coverdale Organization's method of helping managers to discover the skills of management for themselves. Groups perform tasks such as measuring piers and assessing cars to help managers learn about intelligent leadership, creative teamwork, and participative management. This training method has been adopted by several firms and the article reports very positive results. The article is easily and quickly read, focusing on a unique and apparently successful approach to management training.

Hertenstein, Lieutenant Colonel G. Ronald. "The Air Command and Staff College Nonresident Program." Research Report, Air War College, April 1978.

The author focuses on the current nonresident Air Command and Staff College (ACSC) and makes recommendations for immediate and long-range changes. Problems of the seminar method include a homogeneity of attitudes, untrained seminar leaders, inadequate library facilities, difficulty in evaluating the curriculum, and lack of facilities conducive to learning or classified discussions. In 1974, the internal Project Alpha study recommended combining resident Air War College and ACSC into a single school using nonresident programs to fill the gap. Project Alpha also identified the problem of overlapping curricula, especially in nonresident programs. During 1974-1976 the Clements Committee reaffirmed the need for both intermediate and senior level service schools. The author summarizes 1977 ACSC surveys, showing that graduates were considered to be ahead of non-graduates

in all areas of significance. An early 1977 Decision Package Set called for reducing intermediate and senior service schools to 22 weeks. AF/DP formed a joint study group and, among other things, called for more depth and less scope in nonresident programs. The group reviewed several alternatives for interfacing resident and nonresident programs. Short term recommendations are made regarding a proposed non-resident program for ACSC. Two curriculums, one for general staff skills and professional knowledge and a second more specialized curriculum, would take up to 40 weeks with the specialty tracks developed through correspondence courses. Finally, the author proposed a long-range Air University Development Center allowing for individually tailored instruction and providing "consistency and continuity in instruction between the PME schools," and providing a base for continued development throughout an officer's career.

Historical and Progress Report of the Federal Executive Institute, an Interagency Training Facility. Washington, D.C.: Civil Service Commission, September 1969, 48 pp.

This is a report on the first year of operation of the Federal Executive Institute in Charlottesville, Virginia. The report discusses the Institute's educational goals, curriculum, and educational methods, offering the student an opportunity to tailor a track in the eight-week program. Evaluation was done by student executives with follow-on evaluation after four to six months.

Hodgson, Richard C. "Management Training in a New Key." Business Quarterly 43 (Spring 1978): 15-19.

Evaluating the effectiveness of management training programs is a difficult proposition for many. The author proposes various scenarios, supporting one that classroom teaching does in days and weeks what years and decades of experience provides. Vague definitions of programs results in vague programs. Thus, effective management training must be designed to produce the quantity and quality of managers needed for the organization in the future. Finally, management education is best when helping managers who want to improve, and the author suggests that anything less is not worth measuring.

Hooten, Major Donald H. "An Analysis of Professional Military Education at the War College Level." Air Command and Staff College Thesis, June 1965.

This study examines individual service schools in a service-centered academic atmosphere. Evaluation of adequacy of senior officer education is based on examining curricula

of service schools and the National War College. The author determines that individual senior service schools should be discontinued because students should have the benefit of a joint service environment; therefore, the National War College should be expanded. Curriculum comparisons are interesting, but his conclusions are largely based on an opinion that a joint service environment would be superior to an individual service school.

House, Robert J. "The Quest for Relevance in Management Education: Some Second Thoughts and Undesired Consequences." Academy of Management Journal 18:2 (June 1975): 323-333.

The author makes a strong case for not demanding short-term, practical "relevance" in management education. Skill acquisition versus intellectual development is the issue, and he suggests that the professor should be a seeker and communicator of knowledge for which the manager would not normally have access. This article develops the theme that management education should not be directly job-related but should focus on developing the student's intellectual and creative abilities.

"How Companies Raise a Crop of Managers." Business Week (March 10, 1975): 44-48.

Management development programs are being cut by nearly every corporation due to the economic recession. Chrysler has virtually eliminated its program. "Management development is vulnerable because it is expensive, time consuming, and complex to administer." Many large corporations see no alternative to management development even when times are bad. "It is probably more than coincidence that companies dominant in their industries, such as Exxon, AT&T, IBM, and Citicorp, often have the most effective programs. . . . An effective program can pay enormous dividends. It can boost morale at every level, help companies hold good men, and prevent the dislocations that come with moving an outsider in at the top." The common threads in effective programs are that they: (1) Involve all levels of management; (2) Are part of every manager's job; and (3) Require unwavering support from the top. Varied techniques are used to hasten learning. Some companies try to compress experience by short-term special assignments as assistants or executives. "Some companies combine course work with experience." Many companies use university advanced courses for executives. Programs fail most often because of lack of top management involvement. Most companies concede that programs are expensive, but they cannot pinpoint costs. However, high estimates make development programs targets for cutting costs.

Howard-Dobson, Lieutenant General Sir Patrick J. "Reflections on the Staff College, Camberly." Military Review (October 1974): 83-89.

The aim of the Staff College is, "To develop the professional knowledge and understanding of selected officers in order to prepare them for the assumption of increasing responsibility, both on the staff and in command." A year at Camberly teaches students to think. The emphasis is on the study of leadership. The author points out that one should not confuse management with leadership. You get the best of soldiers in war by leadership. He notes a spectrum, with command at one end and leadership at the other. Junior officers are almost always leading in the author's view while a divisional commander does more commanding than leading.

Huntington, Samuel P. The Soldier and the State. Cambridge, Mass.: The Belknap Press of Harvard University Press, 1959.

The book does not address professional military education specifically as an issue but is an important work in gaining an appreciation of the concepts of profession and officership over time.

Janowitz, Morris. The New Military Changing Patterns of Organization. New York: Russet Sage Foundation, 1964, 369 pp.

Janowitz edited this volume which includes ten research papers discussed at the Inter-University Seminar on the Armed Forces. The volume does not address the issue of professional military education (PME) specifically. Rather, four broad categories related to PME are the foci. The first is managerial format and succession where the contributors discuss technocratic management, the problem of routinized rotation and its effects on authority, and that commitment in the military is greater than that found in civilian setting. The second category, professional socialization is concerned with the values military people develop. Lovell's study focuses on attitude changes among West Point cadets. Feld is interested in the change that has taken place in the military over time, combining a modern managerial approach and a primitive one. The third category is social cohesion. Contributors highlighted the relationship between cohesion and morale as a basis for combat effectiveness. The last category is career commitment and retirement. This area identifies the reliance on career commitment in the officer cadre. There are increasingly large numbers of retired military personnel who need to enter civilian life without disruption.

Jones, Fred H. "Is Another Management Training and Development Program the Answer?" Training and Development Journal 32 (February 1978): 50-51.

In this terse article, the author proposes that the solution to managerial ineffectiveness may not be "another training and development program." Rather, good supervision is the key along with open lines of communication. This article adds little to understanding management development, particularly in light of lower level organizational needs.

Jones, J. A. G. "The Costs and Benefits of Management Training." Personnel Management 5 (September 1973): 31-33, 45.

The author suggests the beliefs on management training effectiveness are bi-polar: if such training cannot be justified on economic terms, it should not be done or management training must be an act of faith since the difficulties of measurement make data collection too costly. Lower level training (operation) can be measured, but as you move up the organization hierarchy, measurement is less precise. The critical question is why such training must be evaluated: (1) to sell training to reluctant senior management, (2) to predict the results of a training investment, or (3) to prove that the training investment was worthwhile. A model of evaluation is presented, but once again, productivity measures are needed to understand the cost/benefit analysis.

Kearney, William J. "Management Development Programs Can Pay Off." Business Horizons (April 1975): 81-88.

The author estimates that over one million managers are involved in management development programs, up from 500 thousand in 1966. Estimates of the amount spent on such programs is in the billions. The evidence marshalled for improved managerial performance is weak. Judgments should be based on more than participants' opinions, their superiors' opinions, or third parties. Even differences in performance rankings may not be enough. Research reviews, particularly that of John B. Miner covering studies from 1948-1963, reflect that there has been a lot of research done in the area of management development and the results have been positive. No one technique is most effective. A second major review by J. P. Campbell, J. D. Dunnette, E. E. Lawler, and K. E. Weick reviews material published between 1965-1970. They conclude that "empirical literature available . . . does not demonstrate conclusively that what is learned in a training program makes an individual a better manager." Kearney believes that much of the future research will be done by academicians, but he states that more could be accomplished by businessmen. There are two critical matters in research--

good design and selection of criteria for measuring managerial effectiveness. A prime concern is to insure that changes can be traced to the particular program. Finally, he provides a table of designs that could be used in evaluating effectiveness.

- *Keegan, Major General (Ret) George J. "The Soviet Threat and Professional Officer Education." Education Journal (Fall 1977): 29-32.

This article is an absolutely superb examination of why today's Air Force officers are unfamiliar with the Soviet threat and an understanding of basic strategic concepts. Officers do not read as much as they should. In fact, reading, writing, and the ability to articulate have been supplanted by skills in solving today's crises and managing the resources at hand. Several alternatives are proposed for professional military education with some lament that the Air Force officer is woefully under-educated when compared with his Soviet counterpart.

- Kirkpatrick, Donald L. "Techniques for Evaluating Training Programs." Training and Development Journal (June 1979): 78-92.

Four articles written in June 1960 reflect that it is easier to measure reaction to a program than actual learning, but the author recommends tests where appropriate and suggests that training directors should devise their own evaluation techniques. Several evaluation studies conducted in the 1950s are summarized and offer a methodology for evaluating effectiveness in terms of behavioral changes. Ideally, evaluation should be based on results like reduced turnover, increased productivity, or reduced costs. But, there is little evaluation of this sort because research techniques are simply not adequate.

- *Korb, Lawrence J., ed. "The System for Educating Military Officers in the U. S." Occasional Paper No. 9. Pittsburgh, PA: International Studies Association, 1976, 172 pp.

The purpose of this volume is to highlight viewpoints and insights of people associated with educating military officers. There are 15 contributors and 14 chapters. Part I of the book presents an overview of the situation: Chapter I article, "The Modern Major General" by Donald Blitz focuses on the officer level at and beyond O-5 and what we expect from that level in the future. This "second level of professionalism" should have a historical perspective and an appreciation of the apparent civilian distaste for the

military profession. An officer at this level should be involved in and understand the political system and the society. This professional also needs to appreciate that military force is used to achieve a political objective and keep up with the times in international affairs. At the same time, this professional needs to be an "expert in the conduct of military operations." "The System and the Challenges: an Overview," by M. Richard Rose and Andrew J. Dougherty, examines the present professional development system and offers suggestions for the future. The authors call for recognizing the need for a systems approach to educational and developmental programs and that each system should be designed and administered at the service level. They suggest that the military can learn from the way professional development is accomplished in the private sector. Short courses or workshops with a return to normal work is becoming the norm in business, after a period in the 1960s which resembled the three-tiered professional military education (PME) approach of the military. A continuing education model is prescribed based on the approach of the private sector. Part II of the book is concerned with pre-commissioning military education. Part III of the book focuses on the three-tiered approach to PME. "Professional Identity in a Plural World: The Focus of Junior Officer Education in the United States Air Force," by John E. Ralph focuses on the need for training in military arts rather than generalized education at this level. The author feels there is "no substitute for professional proficiency." "The Dilemma of the Senior Service Colleges--A Commentary," by Franklin M. Davis, Jr., argues that a tailored curriculum is preferable to a single curriculum and that the selection system should be altered to send generalists to war colleges and specialists to advanced schooling in that specialty. "The War Colleges: Education for What?" by Lyman B. Kirkpatrick, Jr., analyzed what was done at the Naval War College by Admiral Turner. Kirkpatrick disagrees with Turner's philosophy and believes that all officers wishing to advance to flag rank should be required to attend. He agrees that attendees should be encouraged to do independent research. "The War Colleges in Perspective," by Frederick H. Hartmann, discusses the important features of the war colleges and some of their problems. The author sees the constant curriculum changes as a fundamental problem and feels that major changes are not necessary at shorter than five-year intervals. A graduate from a war college is a "more well-rounded man" but war colleges are not taken seriously enough by senior personnel. The final section in the book discusses some critical issues. Can an educational

system operated by a hierarchial organization educate its own employees or simply train them? "Education and Officer Attitudes," by Raoul Alcalá reports results of an attitude survey of officers and concludes that officers with graduate degrees were generally "less absolutist" than those without graduate degrees. "Where Should the Officer Obtain his Education?" by Adam Yarmolinsky is a philosophical piece positing a need for graduate education beyond military education. The author feels it is important for military intellectuals to interact with civilian intellectuals in a civilian atmosphere. "The Humanities in the Education of the Military Professional" by Joshiah Bunting argues that an appreciation of the liberal arts is important and cannot be gained in professional military schools. "Some Issues Involved in the Education of Officers," by Peter Dawkins points out that it is difficult to balance the military mission of preparing men to fight with officer education which takes an officer away from operational readiness. He points out the danger of the military becoming "intellectually ingrown." Turning outward for education is needed, but so is turning inward. "Alternative Proposals for Fully Funded Graduate Education on Civilian Campuses" by William J. Taylor, Jr., outlines three proposals for arriving at graduate education for field grade officers that are cost effective. Taylor argues that civilian graduate schools can do a better job than senior service schools and at a lower cost, based on cost per graduate figures. He poses that 18 percent of officers, O-5 and above, are headed for greater responsibility and should have a graduate degree. Taylor argues that since 60 to 70 percent of senior service curricula are not military unique, these courses can be taught more effectively on civilian campuses. Officers holding graduate degrees who need study in national security studies should attend short programs designed for the military by civilian graduate schools. Even the proposed National Defense University could eventually offer intensive, short courses.

Knowles, Malcolm S. "The Professional Organization as a Learning Community." Training and Development Journal (May 1979): 36-40.

Traditional and modern assumptions about professional education are explored in a logical and useful framework. Traditionally, education is designed to produce a knowledgeable person. The modern assumption is that education should produce a competent person, able to apply learning in the work situation. Thus, the traditional teacher-student situation is replaced with process-centered environment with the teacher as a facilitator for action learning. This requires multimedia experiential tools. The learner diagnoses his/her own

needs instead of having the teacher define the objectives. No longer does the professional training suffice alone, education must be continuing--voluntary in most cases but compulsory if the individuals cannot define their needs adequately. The article makes several good points, but one wonders if the result is producing those who can "perform" rather than those who are equipped to think and conceptualize as well.

Lavendar, Major Henry L. "A Case for Expanding the United States Air Force Officer Professional Military Education System Through Correspondence Instruction." Air Command and Staff College, Research Study, April 1977.

The author discusses the meaning of being a professional in face of doubt in minds of military people after Vietnam. He makes a case for expanding professional military education (PME) by developing a series of correspondence courses independent of resident curriculum. PME does not achieve its objective as stated in AFR 53-8; the major criticism he sees is the propensity to peddle facts and cover too many subjects. There is too much concentration on non-military disciplines. The author presents a proposed PME correspondence program--long term (9 years) beginning with first lieutenants.

Leister, Albert et al. "Validation of Contingency Model Leadership Training: Leader Match." Academy of Management Journal (September 1977): 464-470.

Leader Match is a programmed self-study course based upon Fiedler's contingency model of leadership. This training program takes from four to twelve hours for each participant depending on the supplementary materials used. An experiment was conducted with Navy personnel, some using Leader Match and a control group that did not. Subsequent independent performance appraisals suggest that the Leader Match people performed significantly better on the rated leadership dimensions.

*Livingston, J. Sterling. "Myth of the Well-Educated Manager." Harvard Business Review (January-February 1971): 79-89.

The author states that "there is no direct relationship between performance in school or training programs and records of success in management." Median salaries of Harvard's MBA program graduates plateau after fifteen years. Managers with no formal education who attend the Advanced Management Program after fifteen years of experience earn one-third more than those with MBAs. A doctoral dissertation at Harvard indicated that "academic success and business achievement have relatively little association with one another," based

on records of about 1000 Harvard Business School graduates. Arrested careers of MBAs suggest that those who reach the top do not learn those skills in formal management education programs. "Formal management education programs emphasize the development of problem-solving and decision-making skills, but give little attention to the development of skills required to find problems that need to be solved . . .". Both problem finding and opportunity finding skills must be developed on the job.

Luthans, Fred; Lyman, David; and Lockwood, Diane L. "An Individual Development Approach." Human Resource Management (Fall 1978): 1-5.

An "individual management development (IMD)" program is presented as a way to meet individual needs. He suggests that trainers "conduct an organization-wide training needs survey, average the findings, and design an overall development program." IMD programs must: diagnose needs, identify critical job behaviors, design and implement plans, and evaluate effectiveness. IMD is most effective when: individual managers have an input, supervisors are involved, individuals monitor their own behavior, individuals receive immediate objective feedback and programs are modified. Staff experts with line managers must identify behaviors crucial to effective management. IMD assessment instruments provide dimensions of managerial effectiveness: knowledge of business, setting priorities, problem solving and decision making, interpersonal skills, communication skills, subordinate development, and achievement orientation. The instruments are given to line managers and their immediate superiors to arrive at "mutually agreed upon high priority needs" for development. The development staff works with managers to design a plan, showing how the manager will accomplish specific tasks, who will be involved, and when it will be completed. In sum, IMD recognizes individual differences and provides tailor-made plans to meet the needs. Authors claim expense is great in the time commitment of management development staff specialists, but IMD is cost effective when compared to traditional programs. Of 76 manufacturing managers who followed the IMD approach, 34 percent were promoted at a significantly higher promotion rate than those who did not follow IMD.

Mahler, Walter R. "Educating the Executive in the Future."

Training and Development Journal 32 (July 1978): 50-52.

"Never has so much been spent with so little evidence of value," sets the theme of this article. The author suggests that those identified for education are delighted at the selection but care little about the education. He further states that the friendships are the most important benefits of advanced educational programs. Thus, "customers" should be more explicit about what they want from advanced education, with specific skills being critically important.

Making Effective Use of Long-Term Training: A Guide for Managers, Supervisors, Personnel and Training Officers. Washington, D.C.: Civil Service Commission, Training Association Division, October 1973, 27 pages.

This pamphlet is designed to assist in planning for training programs exceeding 120 days duration. It suggests that long-term training is appropriate where: (1) knowledge or skills require a comprehensive study program, (2) a long-term program is most feasible, and (3) the knowledge or skills are complex. Training needs can be identified by forecasting expected turnover and finding people of talent to fill vacancies. The pamphlet presents discussions on publicizing opportunities, selecting participants, using skills and knowledge after training, planning the training program, selecting a training facility, maintaining contact with an employee during training, evaluating the results and maintaining records on participation. An appendix offers descriptions of selected long-term training programs including the Alfred P. Sloan Fellows Program, the Woodrow Wilson School of Public and International Affairs at Princeton, etc.

Margerison, Charles. "Making Tomorrow's Manager's." Management Today (May 1978): 86+.

Another look at the generation gap, this article points out that people today do not get a chance to exercise leadership as early as the World War II generation, even though young people have considerable knowledge. This situation is contrasted to the opposite situation of leadership experience combined with little formal education, which is characteristic of senior managers who began their development 30 years ago. One of the virtues of the World War II generation was loyalty, not a modern virtue in light of today's mobility. Management development needs to keep up with the times, and this requires considering the use of middle managers to fill the void caused by the retirement of many senior executives. The author calls for a variety of approaches to development, including formal courses, experience, and workshops, to transfer knowledge from the senior level to subordinates. Senior managers place a premium on self-development. The author does not disagree, but he does call for planned development.

Masland, John W., and Radway, Lawrence I. Soldiers and Scholars: Military Education and National Policy. Princeton, New Jersey: Princeton University Press, 1959.

Clearly, this is the place one must start when studying professional military education (PME). Military responsibilities in the "modern" age focus on the changing military environment, dynamic military-civilian interface, and the need for education in military policy. There is an excellent history of military education, and education is defined as the link between civilian and military policy makers. Undergraduate, intermediate and senior military programs are described in detail with assessments of curricula and pedagogy. The authors present a summary of higher education in the military and emphasize the peculiar problems of joint programs. This book provides a wealth of background and perspective for the student of PME.

McGregor, Douglas. The Human Side of Enterprise. New York: McGraw-Hill Book Company, Inc., 1960, Chapters 14 and 15, pp. 190-226.

Chapter 14, "Management Development Programs," characterizes development as a production problem allowing individuals little voice in their own career development; the good of the organization being paramount. "In the last analysis, the individual must develop himself," and that is more likely if the individual does not feel manipulated. McGregor takes the agricultural point of view that "the individual will grow into what he is capable of becoming" provided the atmosphere is fertile for growth. McGregor discusses economic and technological characteristics, the effects of structure, policy, and practice, the immediate supervisor's behavior, and the development staff's role as these relate to fostering a climate for growth. Chapter 15, "Acquiring Managerial Skills in the Classroom," stresses that managerial competence is created on the job and not in the classroom. Nonetheless, classroom learning can be important to management development if it is limited to specific needs and is accompanied with active learning, practice (experience) and effective feedback. Expectations of classroom learning should be modest; growth will come only if what is learned is reinforced by the job climate providing a defined need and environment for learning.

McNamara, Donna B., and Salinger, Ruth D. "Measuring the Payoff in Management Training." Training and Development Journal (April 1979): 8-10.

Highlights from the American Society for Training and Development, First Annual Invitational Research Conference,

held from October 31 to November 2, 1978 focus on:
"(1) Designing Guidelines for Evaluating the Outcomes of Management Training; and (2) Evaluating an Executive Development Program at a College of Business Administration."

Miles, Wilford G., and Biggs, William D. "Common, Recurring and Avoidable Errors in Management Development." Training and Development Journal (February 1979): 32-35.

Based on extensive experience observing management development programs in both government and business, the authors identify recurring errors: "(1) Failure to tie development programs to long run and/or strategic considerations; (2) failure to properly qualify participants; (3) failure to use proper training methods; (4) failure to differentiate group and individual development; (5) failure to provide post-training support; and (6) failure to evaluate results." Ninety-nine percent of ongoing programs are not systematically evaluated.

Mills, Robert N. A Practitioner's View: Management Education in the 1980s. Paper given at the 39th Annual Meeting, August 1979, 6 pp.

The author suggests that education is career development and includes: "work assignments, coaching and supervision, education, career planning, and other activities." General Electric feels that work assignments are 80 percent of the development versus five percent for education. The paper discusses what General Electric, as a "Grow Our Own" company, offers through education at Crotonville. Managerial needs of the 1980s are emphasized. Future managers will include more women and minorities, and they will need to be broadened and more well-rounded.

*Miner, John B. Studies in Management Education. New York: Springer Publishing Company, Inc., 1965, 239 pp.

This is a classic in the field of management education and development. The first chapter is devoted to a comprehensive review of the literature through 1964. The author develops specific empirical studies of what is important in management education, and proposes measures of change. His Miner Sentence Completion Scale is used and validated in a research study, a business school study, and a bank management study. Subsequent use of the scale has been widespread, and this book describes its development, use, and scoring in detail. For the student of management education, this book is a necessary first step to insure that the antecedents of management education are acknowledged and understood.

Moore, Colonel Arthur R. "Squadron Officer School and You." Air University Review (September-October 1971): 34-44.

Changes in curriculum are designed to keep up with times, with increased emphasis on communication. Annual surveys of commanders indicate that Squadron Officer School (SOS) graduates are better speakers and writers than non-attendees, and this is the most easily identifiable characteristic of graduates. There are unsupported statements that SOS graduates are also better leaders, trained managers, and more knowledgeable military officers. The author goes on to discuss the Career Motivating Program at SOS to survey junior officer attitudes. He feels one of the most satisfying spin-offs from the seminar program was senior/junior officer interface with senior officers. Finally, he offers advice to commanders based on the lessons learned as SOS commandant.

Morano, Richard. "Continuing Education in Industry." Personnel Journal (February 1973): 106-112.

The author suggests that the useful life of technical training is growing ever shorter. Two results can occur: job assignment obsolescence and performance obsolescence. Both are of concern to employers and each can be addressed by life-long learning of engineers and scientists. Many company-sponsored programs are aimed at combating obsolescence and providing a means for personal growth. Adults are most willing to participate in such programs because of their need to achieve. Adult education is unique in that participants must plan the program, be expected to contribute to the program, and the education must be sequential and developmental. This is a broad conceptual piece, lightly-written and easy to read.

Mylander, Maureen. "The War Colleges: A Wasted Resource." The Time Magazine (7 March 1977): 6-12.

The author is very critical of the war colleges in general, basing her views on alleged institutional inertia, a non-intellectual tradition, budgetary problems, and indifference to education by military leaders. She cites support for her views that the services do not truly value education. Although suggestions are made for change, the article is clear in its anti-military bias and it should be read accordingly.

"The National War College Experience and its Utilization: A Study Among Graduates of the National War College and Supervisors of Graduates." RA 3770. Princeton, NJ: Response Analysis Corporation, March 1975.

Questionnaires were used to gather information about perceptions of and attitudes toward National War College attendance. High value is seen in attendance with varying

attitudes expressed about specific curriculum topics. Participants and supervisors perceive that graduates are better off for having attended although the relationship to job performance is less clear with recent graduates. National War College is seen as more prestigious than the other four senior service schools while those surveyed support, overwhelmingly, a system of five separate colleges. The data are voluminous in this report but necessary to support the conclusions.

Newman, P. G. "Management: The Key to Management Development." Director 31 (October 1978): 34-35.

A survey of 20 public and private organizations linked approaches to management development with overall effectiveness. Organizations with effective management development have education policies which are set at the board level, apply to a broad range of management, encourage performance feedback, link development to organization objectives, place development responsibilities on the line manager, and use outside firms to conduct the training in consultation with the participants. Less effective programs do not employ the above factors, mainly because of an absence of planning and control.

Nihart, Brooke. "Intellectual Wasteland . . . or Challenge?" Armed Forces Journal (March 1973): 26-32.

At the time of the article, then Vice Admiral Stansfield Turner had just made radical changes at the Naval War College (NWC), charging that the war colleges were not providing intellectual challenges to their students. The author visited the Army and Air War College to find that the Navy innovations had been adopted at the sister service institutions sometime earlier. Mr. Nihart concludes that the NWC was indeed in need of change while the counterpoint institutions had already adopted the emphasis adopted by Turner.

Nozza, Peter R. An Analysis of the Long-Range Effects of High Intensity Training. Trenton, NJ: New Jersey State Department of Labor and Industry, April 1970, 153 pp.

The focus of this article is on evaluating a methodology called high intensity training. Three to eight months after the program, training was viewed favorably by trainees, supervisors, and managers.

Odiorne, George S. "The Need for an Economic Approach to Training." Training and Development Journal (June 1975): 32-40.

This article was written in March 1964. Because of the difficulty in relating training to increased profits or efficiency, training programs are often the first to suffer

in an economic downturn. An estimate of nation's training costs is \$30 billion--as much as formal public education. The article provides an Economic Classification worksheet to identify costs and benefits and to classify training as: (1) contribution to profit, (2) the training of replacements for retiring managers, (3) the training that takes several years to return a cash outlay, and (4) training that cannot be classified economically. The author provides seven guides to the industrial educator: (1) trainers should be a change agent, (2) avoid psychotherapy, (3) seek changed job behavior, (4) upgrade people inside who have ability, (5) use proven techniques, (6) look for economic evaluation, and (7) use results of behavioral science research cautiously.

"P&G: 'We Grow Our Own Managers'." Dun's Review (December 1975): 48-50.

Edward G. Harness, chairman and chief executive of Proctor & Gamble, Co. states: "We like to give people responsibility very quickly and that means putting them in jobs they aren't quite ready for." This may be an unorthodox philosophy, but one can't argue with the company's record. The thing that makes P&G one of the five best-managed companies is the performance oriented, in-depth management it has been building for years. "We grow our own manager," says Haynes, "and it starts with finding the right people through an extremely intensive selection process, followed by continuing on-the-job training" P&G does not spell out details, but some facts are known. Except for short courses for sales and some formal training in R&D, formal training is not used. Responsibility is given quickly to those with potential and the trainee always has a policy manual which answers questions. "Each manager is expected to train his successor." P&G does not subscribe to the theory that moving people around a lot--from one area to another--builds general managers.

Passett, Barry A. Leadership Development for Public Service. Houston: Gulf Publishing Company, 1971, 135 pp.

Though somewhat dated, this book provides an excellent rationale for training (developing) leaders for public service. This careful distinction is made between management and leadership with education and training relatively well-defined for the former and neglected for leadership. In a sense, the author argues for the careful identification and development of the bold visionaires and decision-makers needed for the public service organizations of the future. Light and easy to read, the book serves to stimulate thinking on issues related to the differences between developing leaders and training managers.

Pomerleau, Raymond. "The State of Management Development in the Federal Service." Public Personnel Management (January-February 1974): 23-28.

The author defines management development as any planned effort to improve managerial performance by imparting information, increasing skills, conditioning attitudes, and broadening perspectives. Those in the federal service selected for development are the managers who may be confronted with premature obsolescence and the need to prepare high-potential mid-managers to assume increased responsibilities. A model of cognitive skills, effective modes, and a broadening of perspectives is described in terms of the Federal Executive Institute. Finally, the problem of evaluation is expressed as the need to rely on the fact that a broadening experience will improve future behaviors of the public service managers.

Powell, Reed M., and Davis, Charles S. "Do University Executive Development Programs Pay Off? Rewards Not Related to Productivity." Business Horizons (August 1973): 81-87.

Recent interest has centered on cost/benefit analyses of development programs. Due to problems in evaluating programs, measurement is often accomplished by gathering feedback from attendees. Such instruments suffer from several deficiencies: assessment is performed by the participant; evaluation suffers from halo effect because it occurs during a euphoric state; and attendee's evaluation is based on feelings, not concrete evidence of behavioral or performance change. For the individual participant, selection to attend may be more important than the learning. Data were sought from 100 of the largest U. S. corporations who are regular users of development programs. Findings demonstrated a "lack of established policy concerning selection of participants and programs." Company officials regarded improved decision making as the most desired behavioral change, followed by new knowledge about his organization, and then better knowledge of external conditions. Improved human relations and communicative skills, increased technical skills, improved self-confidence, and increased self-awareness were other desired outcomes. Reasons why various programs were used tended to support types of changes in behavior sought and were: to broaden business perspectives, to expose competent manager to new hypotheses, to prepare individual for greater responsibility, to provide training or education to individual who rose through ranks, to permit managers to interact with managers from other areas, to prepare individual for imminent promotion, to provide opportunity for subordinate development while the supervisor is away, and to check competency of a potential successor. The curriculum areas companies most

often wanted were business policy, human relations, general management functions, and communications. Some post-program evaluation does occur, but 55 percent of respondents indicated it was informal. Where it was based on rating scale, it was still based on participant reactions to the program. Even though no systematic evaluation is evident, 36 percent of users felt there was a favorable change and 41 percent claimed they could make no judgments. There was no evidence of unfavorable change. Corporations generally do not maintain follow-ups to determine delayed benefits. "Corporations are using executive development programs largely as an act of faith, and to date they believe that the benefits justify the expenditures."

Ralph, Brigadier General John E. "Professional Identity in a Plural World." Air University Review (January-February 1976): 11-25.

The author suggests that a liberal education, though beneficial, may not serve the best interests of the military officer, particularly if substituted for an education in the art of war. Three specific changes are suggested: a re-emphasis on the military arts, recognition of diversity, and a recognition of special socialization and disciplinary requirements. Special needs of the Air Force are defined, and the Squadron Officer School (SOS) curriculum is related to these needs. The author concludes, as a former commandant of SOS, that the SOS curriculum is a good one but should stress the nature of combat and the nature of symbolism with greater intensity.

Recknagel, Kenneth H. "Why Management Training Fails and How to Make it Succeed." Personnel Journal (August 1974): 589-597.

"Most people will agree that, while management development programs have become almost a corporate must, many of the efforts to improve managerial capability fall far short of their goals and produce more talk and paperwork than substance. A new focus on the individual can make the difference between success and failure. Fourteen proposals made here, which range from personalizing the program to building an ethical system, show how the structure and process of any development effort can be improved."

Reid, Thomas J. "The Context of Management Development." Personnel Journal (April 1974): 280-287.

Management development programs need to be preceded by an understanding of the organization and its "expectations concerning manager behavior and performance." Finely tuned programs exist in terms of content, but organizations

complain about little change in effectiveness due to management development. The environment and organization context are not adequately considered. Institutional values influence life styles and standards of "professional" behavior, and there are great varieties of organizational character due to the stage of evolution. The author suggests a model of a closed system with organizational environment considered first. The context of organization must support the content of programs or management development programs will be a waste.

Rimler, G. Warren, and Ballard, Richard E., Jr. "Humor in Management, Sad Commentary on Training Efforts." University of Michigan Business Review (May 1975): 19-23.

Institutions set increasing resources aside for development, but "results have been slow, and evaluations, where existent, often critical." The authors point out a fairly recent phenomenon of humor in writings concerning training and development, reflecting our inability to grasp the ways organizations work. Humor, however, does not make the problems go away. A critical look is given to the multitude of seminars and workshops offered by "management magicians," despite the lack of evidence of success of these programs. Since industrialism is fundamental to modern organizations, it must be taken into account in terms of the values it fosters and incorporated in training programs. There are special problems of need for specialists who become generalists at the top. The authors plead for training programs that reflect "a fundamental awareness of the realities of industrialism."

Rogers, Lieutenant General F. Michael. "Why Professional Military Education?" Air University Review (July-August 1975): 2-9.

Lieutenant General Rogers was unconvinced of the need for, or value of, professional military education (PME) when he was first selected to command Air University. But he now determines that, "to be a professional, one must belong to a corps that embodies formal education" among other things. Since junior officers know little about the "art and science of warfare," PME helps to fill the void. General Rogers gives nine tenets for PME: broad knowledge beyond specialty, match education to level, prevent obsolescence of knowledge, insure informed officers, allow a chance to reflect, provide right skills at right time, student body is a reserve that can quickly be used in crisis, student and faculty interaction, and provide a forum for addressing the question of ethics. Because "we cannot afford to be ignorant of the art of war," General Rogers sees PME as necessary when he describes the AU system.

Rose, M. Richard, and Dougherty, Andrew J. "Educating the Military Officer--The System and Its Challenges: An Overview." Washington, D.C.: The National War College Strategic Research Group, 14 November 1975.

A model is presented with professional education of military officers as a continuum rather than a three-tiered system. Rather than a limited number of officers receiving extended periods of concentrated education, the authors propose that more officers be assigned to existing centers of educational excellence for varying periods depending on the needs and the program. Between periods of attendance, officers would supplement their education with courses of study and seminars. Such a concept would be cheaper, allow more officers to participate, and minimize time away from the job. This systems model is an interesting one, integrating professional military education in a conceptual framework that makes a lot of sense.

Saline, Lindon E. "Understanding and Doing Something About Professional Development." Training and Development Journal 31 (August 1977): 3-10.

Professional development is defined as a "state of readiness to be and to become." Three criteria are defined for this state of readiness: a current capability to perform socially, academically, and professionally; increased self-esteem; and preparation for future growth. The quality of supervision and coaching are critical in an organization. Each individual is responsible for professional development, supported by the learning opportunities available and the overall learning climate. This is an excellent piece giving each of us, as professionals, a specific charge for the design and implementation of our own professional development program.

Sankar, Y. "A Conceptual Framework for the Evaluation of Management Development Programs." Management International Review 18, No. 3 (1978): 83-97.

This article makes a case for using Bloom's taxonomy of learning and a systematic approach to management development programs. If specific behavioral objectives are developed, evaluation becomes linked to what is taught. The author provides detailed guidance by using a two-dimensional model of elements of knowledge on the one hand, and objectives of management development programs on the other. Finally, he makes a case for a systematic organization of programs using theoretical rationale.

Schein, Virginia E. "An Evaluation of a Long-Term Management Training Program." Training and Development Journal (December 1971): 28-34.

The article reports an investigation to "determine the effectiveness of an eight-month management training program for college graduates conducted by the American Management Association." There was no on-campus faculty. Rather, the program used managers, consultants, government officials, etc., to discuss topics. Evaluation of the program was based on pre and post-test scores on several instruments including The Study of Values, Strong Vocational Interest Blank, Leadership Opinion Questionnaire, and three questionnaires which measure attitudes toward management. The result showed that significant changes in attitudes and interests occurred in the following areas: (1) leadership style--greater respect for subordinates and peers, (2) attitudes toward business--more favorable, (3) self-confidence--increased, (4) need for socialability and ascendance--greater desire to lead, (5) diversity of interest--broadened. The article concludes that meaningful individual changes occurred and poses the need for more research to associate changes with success on the job and permanency of the changes.

Scott, Harriet Fast. "Educating the Soviet Officer Corps." Air Force Magazine (March 1975): 57-60.

Despite the fact that this article focuses on initial education of military officers in the USSR, the emphasis that Soviet military leaders place on education and training is awesome when compared to the U. S. For the upper level (war college) academies, extensive preparation and competitive entrance exams are used for selection. The author provides a concise and informative sketch of the extensive nature of officer training and education in the Soviet Union.

Selby, Brian. "The Modern Military Model." Management Today (April 1978): 70-74+.

The author states that the military spends more in development in Great Britain than civilian organizations. He makes a plea for the need for management development using the military as an example of proper emphasis on development. In-service training is described and career planning in the military is lauded--especially in that job rotation is built into the system. The article points out a sad lack of management development in most companies and describes the situation. Article is interesting but perhaps not of much use in the U. S. environment.

Sherwood, Frank P. Selected Papers: Executive Development and the Federal Executive Institute. Washington, D.C.: Civil Service Commission, September 1971, 86 pp.

Selected papers concerning the efforts of the Federal Government in executive development are presented. The first three papers focus on the "problems, needs, and theories of executive manpower management." The second section focuses on the Federal Executive Institute's approaches and philosophies. The final section is an essay on the subject of evaluation. V. Dallas Merrell drew on the theories of Curt Lewin to develop a questionnaire given to graduates of three major executive development programs.

Smith, H. R. "Another View. Executive Development Programs." Business Horizons (April 1974): 39-46.

This is a rebuttal to the Powell and Davis article in the August 1973 issue of Business Horizons. The author posits that short executive courses should not significantly alter behavior because the personalities of leaders are not so flexible as that. Sensitivity training has lost support as a technique for executive development. As these programs lost momentum and teachers reappraised what they were doing, transforming sensitivity training into organization development (OD). In OD, consultants go into an organization "to develop team impetus for doing what needs to be done . . . OD endeavors to develop a consensus that all accept constructive change." Executive development programs probably do little to change attitudes. Too much change would make the returning executive a deviant and the organization would not absorb him. Programs might do well to "guide managers toward what their society is and where it is heading." Companies want executives to be more effective when they return to their jobs. As a result, few executives expect much more than greater competence on the job in evaluating training programs.

Smith, Major William E.; Studdard, Major Wilater C.; and Suban, Major David N. "Academic Year 1977 Air Command and Staff College Student Workload." Air Command and Staff College Research Study, May 1977.

One hundred students were surveyed to determine the amount of time students spent on Air Command and Staff College (ACSC) and related activities. Average weekly workloads for each course and phase are provided. No significant difference was found in the amount of time spent preparing for ACSC between Auburn/Troy students and non-students except during final exam week. Study identified peaks and valleys in the workload. Students with management related external degree programs spent as much time on outside preparation for Command

and Management phase as non-masters students. Only 1.5 hours per week on the average is spent in preparation for electives, but some electives showed a much larger number of hours required than other electives. The authors recommend a standardization of outside time required for electives.

Somerville, James D. "A Systems Approach to Management Development." Personnel Journal (May 1974): 367-371.

Management development, as a concept, is explained as more than a training program. It is an assessment of a company's strengths and weaknesses, an important prelude to successful business planning, and an integral part of the business cycle. A model attempts to solidify the concept but the support is weak.

Spautz, Michael E. A Survey of the Effectiveness of Management Development Programs. Washington, D.C.: U. S. Civil Service Commission, May 1971, 68 pp.

A survey of recent unpublished studies is summarized. The survey was done to learn about training evaluation in private industry. Seventeen studies were included and are in two categories of criteria--internal and external.

Special Curriculum: General Management Training Institute. Chicago, IL: Civil Service Commission, Regional Training Center, 1975, 22 pp.

This document provides course offerings, dates, location, and charges for each course. Examples are a 5-day Administrative Office Seminar for \$115, a 3-day Creative Problem Solving course for \$110, a 3-day MBO course for \$100, and several more. Objectives and descriptions are provided for each course.

Spector, Ronald. Professors of War: The Naval War College and the Development of the Naval Profession. Newport, R.I.: Naval War College Press, 1977, 185 pp.

Essentially a detailed study of the Naval War College (NWC), this book recounts the development and evolution of NWC philosophy and curricula. It is tedious reading for one outside the Navy, but the book does provide insights on how substantive matters are resolved in the senior service environment.

Steiner, Richard, and Kelly, Frank. "A Key Factors Approach to Assessing Management Development." Personnel Journal (July 1976): 358-361+.

There has been renewed interest in management development, but this interest is accompanied with little effort to

assess impact because evaluation is too expensive, measuring instruments are not sophisticated, and there is too little time. In this paper, emphasis is placed on isolating four participant characteristics which might interact with perceptions of course favorability: age, education, years with the organization, and reasons for attending. The research was based on 227 senior level executives attending university programs over one year. No statistically significant differences were found between older and younger participants with respect to knowledge levels. Older groups are more likely to recommend programs to peers and subordinates. No consistent relationship was found between education level and course favorability. Years with organization had no impact on recommendations or subordinates or peers, those with greater than 16 years service felt they learned more, courses were more closely linked to expectations, and participants were anxious to have superiors attend. Being ordered to attend made it unlikely that one would recommend the program to subordinates or peers.

Stiefel, Dr. Rolf Th. "Post-experience Management Training (Summary)." Management International Review (1974): 151-155.

This article argues that the content of post-experience curricula should include management processes rather than functional management topics. Since executives are uniquely individual, training should "require an experiential learning model which is based on learning-by-integration" so new learning does not fade after formal training. Learning should only have as much structure as the individual's needs and wishes dictate.

*Stogill, Ralph M. Handbook of Leadership. New York: The Free Press, 1974, 613 pp.

Chapter 16, "Leadership Training" is a comprehensive review of the existing literature to the time of publication. The research review includes the following subjects: training methods and techniques, the early research (circa 1910-20), effects of training on group performance, factors affecting training outcomes, and a summary of reviews and bibliographies. Stogill concludes that research on leadership training is inadequate in design and execution. The chapter is replete with citations, referring the reader to the bibliography found on pp. 430-581. This book is a "must" for any library of leadership materials, and Chapter 16 provides a concise review of the relevant training studies prior to 1974.

Sturm, Ted R. "Forging the Future Force." Airman (March 1976): 18-22.

A lively well-written exposition of the Squadron Officer School (SOS) curriculum as it existed in early 1976. Philosophy, rationale, and technique are explained in an easy-to-read format to explain SOS to the people of the Air Force.

"The Thoughts of Chairman Collyear." Industrial Management (April 1979): 35-36.

The chief executive of Glacier Metal suggests that if management development is so important to the firm, top managers should get involved, even to the point of designing the curriculum. Most managers re-discover very elementary things, and Chairman Collyear wrote a manual to shorten this learning curve. Education must be a priority, and investment in manpower is critical. This is a fun article, reviewing an interview with a chief executive who has written and developed important programs in management education and development.

Ungerson, Bernard. "Personal Growth." Bankers Magazine (London) (September 1976): 32+.

The author poses the major dangers of management development programs: neglecting parts of the total process, programs, seeing programs as a paper exercise, and only rarely using techniques. In a very general way the author discusses objectives of programs and how they might be achieved. He concludes that careers cannot be planned due to the uncertainty of the future. Work reviews are essential to determine training needs and to aid assessment.

Von der Embse, Thomas J. "Choosing a Management Development Program: A Decision Model." Personnel Journal (October 1973): 907-912.

The objective of the article is to present a framework for choosing a program that meets the organization's needs. Organization objectives must first be designed. Then, specific managerial skills need to be identified with an assessment of needs (depth of training; fundamental knowledge skill development; human relations training). These result in a series of program options: human relations training (role playing, sensitivity training, or Grid), case-conference techniques, position rotation, multiple management, OJT, formal courses, or simulations. The author does an excellent job showing how the right choice can be made by matching objectives, skills, needs, and programs--noting that cost cannot be the sole criterion for the final choice.

Wagel, William H. "Evaluating Management Development and Training Programs." Personnel (July-August 1977): 4-10.

Only fifteen percent of 50 companies responding to a survey indicate that they conduct some kind of limited cost/benefit of their management development and training programs. Another ten percent looked at improved sales or longevity of employees. Needs analysis is a first step with training budgets being established, generally, in a rather unscientific manner. Many respondents believe that programs cannot be quantitatively evaluated or even that such evaluations are unnecessary. Some charge the department involved, and if the department will not pay, they consider the training non-worthwhile. Others use qualitative measures from the trainee or his manager. Finally, a few (ten percent) use sophisticated qualitative measures of increased sales to training costs or other measures of value added. Useful systems are rare and this article gives useful insights into the complexities of measurement.

Wagner, Colonel Louis C. "Air Force Command Training--Is it Effective?" Air War College Research Report, April 1974.

The Air Force has no subjective measure of effectiveness, according to the author, and this paper attempts to provide help by surveying commanders (Air War College students) to ask them how well Air Force training has prepared them to command. Test group students had command experience, while control group students did not have command experience. Survey instruments for both groups covered the same areas with some different wording. The author discusses similarities and differences in two groups. He concludes, based on responses to the survey (which required a lot of judgment to categorize responses), that professional military education (PME) is ineffective in training for command; 61.7 percent of test group indicated PME provided little help, while 83.3 percent said that the greatest help came from actual field experience. Alternatives are offered that the author believes would be more effective in preparing officers for command to include specific commander's courses.

Watherston, Sir David, KBE, CMG. "Management Education and Training in the USSR." B.A.C.I.E. Journal (January 1975): 11-13.

A major emphasis in management education and training in the USSR is on technology and economics with a limited introduction to the behavioral sciences. There is no apparent general use of management courses except for the two-to-three month Central Institute of Management in Moscow for senior officials and managers. The author felt the degree of specialization everywhere else was "too intense." He also pointed to the danger of inbreeding as the tendency was for

individuals to do all-level work at the same institution. Future managers move into polytechnics and specialized institutes (not universities) for a full-time, five-year course which includes practical experience. A new emphasis is on economics in addition to technology. Post-experience management development varies in length from three to ten months with courses in economics, cybernetics, organization and planning of government enterprises, statistics, and information theory.

"When Practice is Imperfect." Industrial Management (February 1976): 28-29.

The author makes a cogent point--there has been an over-concentration and emphasis on learning by doing. This has not clearly resulted in the development of more effective managers. Further, much of management development has become overly simplistic and unrelated to the needs of organizations and managers. A potpourri of methods is suggested for specific levels of intensity: individual, interpersonal, group, intergroup, and organizational.

ADDITIONS

Dubin, Samuel S. The Psychology of Keeping Up to Date. In Press-Chemical Technology (September 1972), 17 pp.

The author discusses two major factors he considers important in updating professional skills: motivation and organization climate. He suggests that middle age people should get involved in a self-education program that is continuing. Professionals should devote 20 percent of their time to keeping current or risk obsolescence. In order to maintain competence, professionals need to have motivation to keep informed. The organizational climate should foster this motivation. One aspect of this climate would be a management philosophy that encourages continuing education.

Improving Managerial Performance Through Management Development. Boston, Mass.: State Street Consultants, 1976, 28 pp.

State Street Consultants conducted a survey of 96 corporations, asking for specific examples of management development success stories. The paper discusses actual near-term results achieved through management development programs. Common ingredients to all the success stories included addressing the correct issues, assuring transference to the job, and providing feedback and follow-up.

COST ANALYSIS APPENDIX

METHODOLOGY FOR COMPUTING COSTS

OF AIR FORCE PME

USING 1978-79 DATA

Note: All cost data obtained from Air University sources
and represent only those costs relating to resident
programs.

I. SQUADRON OFFICER SCHOOL

Subject	Hours	Cost/Grad % of 275 hrs	Cost/Grad % of 347 hrs	Cost/Grad % of 444 hrs
AREA 1: COMMUNICATION SKILLS	70	\$1,633	\$1,294	\$1,011
Phase 1: Communication Process	8	187	148	116
Phase 2: Communication Development Lab	26	607	481	375
Phase 3: Writing	1	23	18	14
Phase 4: Speaking	35	816	547	506
AREA 2: LEADERSHIP IN THE AIR FORCE	141	1,609 (69 hrs for Area 2)	2,606	2,037
Phase 1: The Air Force Leader	16	373	296	231
Phase 2: People in the Air Force	14	326	259	202
Phase 3: The Leadership Environment	11	257	203	159
Phase 4: Field Leadership Program	72*	Not included	1,331	1,040
Phase 5: Leadership Development Program	28	653	517	405

* 72 hours of time devoted to sports program is not included in the 275 hours column, but is included in the 347 hours column. Seventy-two hours are included as part of TOTAL ACADEMIC INSTRUCTION in AU Catalog.

I. SQUADRON OFFICER SCHOOL (cont.)

Subject	Hours	Cost/Grad % of 275 hrs	Cost/Grad % of 347 hrs	Cost/Grad % of 444 hrs
AREA 3: MANAGEMENT	41	\$ 956	\$ 758	\$ 592
Phase 1: Management Concepts and Techniques	16	373	296	231
Phase 2: Resource Management	25	583	462	361
AREA 4: UNITED STATES AIR FORCE AND FORCE EMPLOYMENT	71	1,656	1,312	1,026
Phase 1: Environment for Force Employment	4	93	74	58
Phase 2: USSR/PRC Threat Assessment	16	373	296	231
Phase 3: Policy, Strategy, and Doctrine	7	163	129	101
Phase 4: US Strategic Forces	9	210	166	130
Phase 5: US General Purpose Forces	17	397	314	246
Phase 6: Employment of Aerospace Power	18	420	333	260
Tests	9	210	166	130
Test Review	6	140	112	87
Commandant's Option	9	210	166	130
TOTAL ACADEMIC INSTRUCTION	347		6,414	
	275 excluding field leadership	6,414	\$18.48/hr	\$14.45/hr
		\$23.32/hr		

I. SQUADRON OFFICER SCHOOL (cont.)

Subject	Hours	Cost/Grad % of 275 hrs	Cost/Grad % of 347 hrs	Cost/Grad % of 444 hrs
OTHER SCHEDULED PERIODS:				
Admin & Orientation	33	not included	not included	\$ 477
Independent Study & Research	20	"	"	289
Progress Reports	8	"	"	116
Pre-Course Test and				
Academic Program Disc.	4	"	"	58
General	2	"	"	29
Special Activities	5	"	"	72
Optional Periods	25	"	"	360
TOTAL OTHER THAN ACADEMIC INSTRUCTION	97	"	"	1,401
TOTAL CURRICULUM HOURS	444			6,414

Cost/grad as a % of 444 hours breaks down the total curriculum hours which include OTHER SCHEDULED PERIODS and applies a % of the total cost per graduate to each area's percentage of the total curriculum hours. Other scheduled periods include 20 hours of independent study and research. If one were to exclude other scheduled activities in arriving at a cost per graduate figure, the total number of hours of academic instruction would be 347 hours as listed in the catalog, or 275 hours if the field leadership program (sports) is excluded, then costs are allocated as a % of the total cost per graduate to each area's percentage of the total hours of academic instruction.

II. AIR COMMAND AND STAFF

Subject	Hours	Cost/Grad		Cost/Grad	
		\$	% of 1091 hrs	\$	% of 1550 hrs
Orientation	11	\$ 239		\$ 169	
AREA 1: STAFF COMM & RESEARCH	268	5,832		4,105	
Phase 1: Fundamentals of Effective Staff Comm	35	762		536	
Phase 2: Air Staff Scenario	18	392		276	
Phase 3: Application of staff comm to other areas	15*	326		230	
Phase 4: Research Program	200	4,352		3,063	
AREA 2: COMMAND AND MANAGEMENT	241	5,245		3,692	
Phase 1: Fundamentals	50	1,088		766	
Phase 2: Command and Leadership	60	1,306		919	
Phase 3: Staff Techniques	50	1,088		766	
Phase 4: Resource Management	81	1,763		1,241	
AREA 3: MILITARY ENVIRONMENT	109	2,372		1,670	
Phase 1: National Security Policy	46	1,001		705	
Phase 2: Regional Planning Studies	63	1,371		965	

* This 15 hours is double counted as application to other areas and other areas are not increased by this number of hours, so the 15 hours are probably free time. However, the 15 hours are included as hours of academic instruction.

11. AIR COMMAND AND STAFF COLLEGE (Cont.)

Subject	Hours	Cost/Grad % of 1091 hrs	Cost/Grad % of 1550 hrs
AREA 4: MILITARY EMPLOYMENT	254	\$ 5,528	\$ 3,890
Phase 1: Military Strategy and Doctrine	39	849	597
Phase 2: General Purpose and Mobility Forces	99	2,154	1,516
Phase 3: Theater Operations	64	1,393	980
Phase 4: Strategic Planning and Operations	52	1,132	797
Electives	20	435	306
Commandant's Option	20	435	306
TOTAL CORE CURRICULUM	923	20,086	14,138
Student Operations			
Analysis and Review Seminars	28	609	429
Testing	28	609	429
Specialty Track	112	2,438	1,715
TOTAL CONTACT HOURS OF ACADEMIC INSTRUCTION	1,091	23,742	16,711
OTHER THAN ACADEMIC INSTRUCTION			
Allied Officer			
Presentation	6	Not included	92
Physical Conditioning and Athletics	45		689
Administration & Ceremonies	17		260
Conference Periods	30		460
Developmental Study and Preparation during Duty Day	361		5,530

Note 643 hours included in catalog as beyond duty day study and preparation. These 643 hours are excluded from both the 1091 hours and the 1550 hours column.

II. AIR COMMAND AND STAFF COLLEGE (Cont.)

Subject	Hours	Cost/Grad	
		% of 1091 hours	% of 1550 hours
TOTAL OTHER THAN ACADEMIC INSTRUCTION	459		\$ 7,031
TOTAL CURRICULUM TIME	1,550	23,742	\$15.32/hr.

Total cost per graduate of \$23,742 is figured the same way as for Air War College.

Cost/grad as a % of 1550 hours breaks down the total curriculum hours, which include OTHER THAN ACADEMIC INSTRUCTION but excludes 643 hours of off-duty study included in catalog, and applies a % of the total cost per graduate to each area's percentage of the total curriculum hours of 1550 hours. Other than Academic Instruction includes 643 hours of during duty day developmental study and preparation. If one were to exclude other than academic instruction in arriving at a cost/grad, the total number of hours of academic instruction would be 1091 hours, then apply % of total cost/graduate to each area's % of total hours of academic instruction.

III. AIR WAR COLLEGE

Subject	Hours	Cost/Grad % of 1600 hrs	Cost/Grad % of 758.5 hrs
Orientation	15	\$ 265	\$ 559
Strategic Concepts Phase	24	424	894
COURSE I: LEADERSHIP AND MANAGEMENT	138	2,436	5,139
Phase 1: Leadership and Command	51	900	1,899
Phase 2: Decision Making	37.5	662	1,397
Phase 3: Resource Management	49.5	874	1,843
COURSE II: NATIONAL SECURITY AFFAIRS	125.5	2,216	4,674
Phase 1: National Security and the International System	47	811	1,750
Phase 2: National Security Policy Formulation	32.5	574	1,211
Phase 3: Military Force and National Security	46	812	1,713
COURSE III: MILITARY ENVIRONMENT	355	6,267	13,220
Phase 1: General Purpose Force Employment	94	1,659	3,501
Phase 2: Combined Warfare	94	1,659	3,501
Phase 3: Regional Mil Assessments	41	724	1,527
Phase 4: Strategic Force Employment	65	1,148	2,420
National Security Study	33	583	1,229
Airpower Symposium	10	176	372
National Security Forum	18	318	670
SUBTOTALS	657.5	\$11,608	\$24,486

III. AIR WAR COLLEGE (Cont.)

Subject	Hours	Cost/Grad		Cost/Grad	
		% of 1600 hrs		% of 758.5 hrs	
Field Trips	16	\$	282	\$	596
Intel Briefings	5		88		186
Electives	72		1,271		2,681
Classical Strategists Seminars	8		141		298
TOTAL ACADEMIC INSTRUCTION	758.5	\$13,391	\$17.65/hr	\$28,247	\$37.24/hr
OTHER SCHEDULED ACTIVITIES					
Military Studies	112		1,977		Not included
Independent Study	707.5		12,491		"
Admin & Ceremonies	22		388		
TOTAL OTHER THAN ACADEMIC INSTRUCTION	841.5		14,856		
TOTAL CURRICULUM HOURS	1,600		28,247		

The cost per graduate figure of \$28,247 does not include student pay and allowances, but does include military unfunded military retirement and civilian retirement and benefits after an 11% reduction factor.

Unfunded Military Retirement is added for military staff at a rate of 26.5%.

Civilian staff adjustments were made by a reduction of 11% and then adding a factor of 20.4% of the reduced figure for retirement and 4% of the reduced figure for benefits.

Cost/Grad as a % of 1600 hours breaks down the total curriculum hours which include OTHER SCHEDULED ACTIVITIES and applies a % of the total cost per graduate to each area's percentage of the total curriculum hours. Other scheduled activities include 707.5 hours of independent study. If one were to exclude other scheduled activities in arriving at a cost per graduate figure, the total number of hours of academic instruction would be 758.5 hours. The cost per graduate as a % of 758.5 hours excludes OTHER SCHEDULED ACTIVITIES and allocates a % of the total cost per graduate to each area's percentage of the total hours of academic instruction.

IV. COST PER-HOUR CALCULATIONS

In order to make comparisons between cost for PME and costs for a development program in the civilian sector, we arrived at a cost/hour basis as being the most reasonable approach to making comparisons. The number of hours per day in the University of Michigan Management Series or American Management Association courses so we assumed an eight-hour day.

For example, on page 10 of the University of Michigan Management Seminars book, an Executive Development Program is shown from May 11-June 6, 1980, at a program fee of \$3200 which included room and board (so no per diem included in cost/hour computation).

20 week days x 8 hours = 160 hours

Program Fee	\$3200	
Travel	<u>215</u>	
	\$3415	$3415/160 = \$21.34 \text{ per hour}$

If this hourly cost is compared against the cost per hour for the Command and Management Block of Air Command and Staff College it is necessary to arrive at the hourly cost. Area 2 of ACSC is 241 hours. If one considers only the Total contact hours of academic instruction at 1,091 for the basis of total cost/graduate, then the cost per hour for Area 2 would be \$21.76/hour.

i.e., $241/1091 \times \$23,742 = \$5,245$

$\$5,245/241 = \$21.76/\text{hour}$

If one considers the total curriculum as it is listed in the AU Catalog as the basis for total cost/graduate, then the cost per hour for Area 2 would be \$15.32/hour.

i.e., $241/1550 \times \$23,742 = \$3,692$

$\$3,692/241 = \$15.32/\text{hour}$

If the University of Michigan Management Seminars are 6 hours per day instead of 8 hours per day the cost per hour increases to \$28.46.

i.e., 20 week days x 6 hours = 120 hours

Program Fee	\$3200	
Travel	<u>215</u>	
	\$3415	$3415/120 = \$28.46/\text{hour}$